

Comment GP-35

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1

TO: California Dept. Of Transportation
Environmental Division
Att: Jennifer Taylor

06-29-14

cc: State Office of Historic Preservation

From: Quinn Miller
195 S. Garnsey Ave.
Bakersfield, CA. 93309

RE: Comments for Centennial Corridor Draft EIR

Hello Jennifer,

I am submitting my comments as requested by July, 8th. 2014.

I will comment on the Historical aspects of my property, the other properties in my district, as well as the history of George Barsotti.

First of all, I'm confused. It seems to me that it is Cal Trans responsibility to find and describe what is or is not historic. When the OHP say's to prepare a nomination, or to share this information with Cal Trans, wasn't that Cal Trans job in the first place? Isn't this what Cal Trans gets paid to do? So in essence the taxpayer has to do what has already been paid by the taxpayers to do. I also assumed Cal Trans would review all existing historic building surveys. (Section 106)

I'm curious is to why Cal Trans did not want to review the 175 page Amicus Preservation brief that was offered by John Powell. It's my understanding that Government-produced Historic Property Survey Reports for Draft-EIRs and for Final EIRs are supposed to consult and cite ALL pre-existing historic property surveys, especially those produced within the last five years. This APB was provided to the SHPO Carol Roland-Nawi Ph.D.

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Attachments: APB Cover Sheet and SHPO acknowledgement.
Letter to SHPO from John Powell.

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The houses south of my residence would be Tract 1938, plus a few other homes just south of this tract. There has been much discussion about this area because of the two bomb shelters, and my home which is at the north end of the tract.

It seems this Tract, known as the Armstrong-Womack Historic District, exceeds the minimum 67% statistical requirement for listing as a residential historic district under National Register Criterion C. The district additionally appears to qualify under the seven (7) guidelines and the "Rule of Thumb" for National Register integrity compliance, including acceptable material changes that have been adopted over time in response to state and national energy conservation goals and mandates. Criterion "B" should be satisfied with the social and ownership profile of the neighborhood, including its most prominent residents and developers.

These upper middle class California Ranch-style homes were mostly built by James Womack Construction. The homes were originally owned almost exclusively by a close-knit circle of friends working in the construction, real estate development, and real estate sales professions who were socially prominent and politically influential in the community, as well as by members of long established or historic farming and cattle ranching enterprises in Kern County.

To say James Womack or the Gibbons and Wheelans were not "Important" or not "Master Builders" of construction is just wrong. To this day when a home is for sale in Bakersfield, and was built by one of these companies, it's advertised as a "Gibbons and Wheelan built" or "Womack Construction."

To say The Karpe family is not "Important" is wrong. This family built a well known Real estate firm in town.

To say Honorable Judge Gibbons was not "Important" is absurd.

I could go on and on but all of this is known, it's been sent to OHP. Other people are, or have already sent this information to OHP in nomination form.

I would like to add the History of Omar Cavins. He is the person who had my home built on top of the existing Bootlegger underground vault. Cavins was a 1915 geology graduate of U.C. Berkeley who worked as a petroleum geologist for Standard Oil Company. He was Friends with Chief Justice Earl Warren, worked with Mr. Stoner of Standard Oil, as well as Mr. Halliburton. You can find an Oral history with Mr. Cavins from 1970, recorded before he died. Transcript at Bancroft Library at CAL.

http://archive.org/stream/oralhistearlwarren00bakerich/oralhistearlwarren00bakerich_djvu.txt

Attachments: South Garnsey Avenue, Armstrong-Womack Historic District.
Corresponding Draft EIR Documents.

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The Fallout shelters listed for tract 1938 are deemed not historic due to the changes to the homes or shelters. Yes 201 S. Garnsey has new windows, etc. plus the construction of the second garage over the fallout shelter.

209 S. Garnsey has a shelter that remains very well intact. Yes they use it for storage. But the change in the roof, and re-stucco on exterior walls seems to fit within the 7 principles for Architectural Integrity and the Guiding "Rule of Thumb". Under "Materials" (the properties retain a reasonable percentage of their original building products - generally 75% or more as spelled out in original architectural plans and specifications, again, subject to acceptable evolutionary changes expected from generation to generation)

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This makes 209 S. Garnsey not very different than 3904 Marsha St. Where the fallout shelter has been deemed historic. 3904 Marsha street does not have original roof, has new front door, a carport, etc. I'm sure its even been painted a few times, not much different than refreshing some old stucco.

Attachments: Architectural Integrity and the Guiding "Rule of Thumb"
Corresponding Draft EIR Documents.

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Our home at 195. S Garnsey Ave. has quite a bit of history. We have one of those properties you rarely see. .7 acres, gated, long driveway, 15 huge trees. 30 foot hedges, etc. Very private and secluded. Pool, guest house, outdoor kitchen, you name it. The home above ground looks like it should be in Sunset magazine, circa 1950. But the fun part is when you take one of our two stairways below ground to find this 2000 square foot basement with 10 foot plus ceilings. It's amazing. We have one of those homes where everyone who ever sees it for the first time is awe struck. "This is the coolest house we've ever seen" is normally what we get. When people learn about the freeway coming through, everyone states, "well this has to be historic." This home can't be duplicated, can't be compared to anything else. So here we are, everyone who's ever seen your house and knows the story say's it has to be historic!

George Barsotti built our basement in the late 20's. He built his residence north of our basement on Stockdale Hwy. He was a bootlegger most of his adult life. He became very good at his business and grew to wealth and prosperity. He owned the land from his home west to Stine Rd. and south of our property. He built 7 homes in this area. All but his residence still exist. He also owned other homes in East Bakersfield.

We have many, many facts about the historic figure of George Barsotti that were not researched for the EIR. We have had George Barostti's relatives to our home, we have recorded interviews and newspaper articles, and much more. I have spoke to many older Italians who knew his family, and the stories!

About his properties which were not researched for the EIR:

3809 and 3815 Stockdale Hwy. George built these west of his residence, they are still there today. Built in the early 30's. No mention of these at all in the EIR.

3899 Stockdale Hwy. George built this house on the corner of Stockdale Hwy and Stine Rd. This was the "Pink House" it was a road house where he sold liquor, also has a basement where he stored liquor. Rumors were there was a tunnel from our basement to this one, but George's daughter said no, they moved the liquor by truck. EIR does list this property, and states doesn't know who built it or originally lived there.

16 Stine Rd., 22 Stine Rd., and 30 Stine Rd. George built these 3 Tudor style homes in the early 30's. They were more properties he built for rentals. The EIR does list them, but again states doesn't know who built them or originally lived there.

Of course on all of these properties the EIR states These buildings are not associated with the lives of persons important to history.

We could start a whole new district just on the properties and history from the Barsotti bootlegging era.

Attachments: Bakersfield Californian, Audio Interview with Lilly,
Corresponding Draft EIR documents.

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Our basement is two level. Two large rooms with multiple other rooms attached. We have left it original on purpose to show the historic nature of this underground vault. The one room that has been remodeled when Judge Gibbons owned this property has a fireplace, and tile floors. Our home is very original. Windows, cabinets, etc. are intact. You can see our stairs and basement rooms as they were in the Bakersfield Californian photos when the basement was raided.

The EIR lacks the research for our property and George Barsotti.

Some examples:

"Research provided little information about Barsotti during his years in Bakersfield"

"Newspaper accounts reveal that George Barsotti had various arrests for producing, transporting, and storing of illegal wine and distilled spirits during the 1920's; however those accounts do not include any mention of the property documented on this form"

"It does not appear that any known owners or tenants of this residence made demonstrably important contributions to history at the local, state or national level"

"The property must have or have had, information to contribute to our understanding of human history"

"Moreover, even if the basement was concluded to have been built or used for bootlegging during Prohibition, it does not have important information that contributes to our understanding of history. Instead, it is of a standard basement design, with very few elements connecting it to it's illicit usage"

I could go on and on, but the fact remains, the research we have done is of far greater depth than was listed in the Draft EIR.

Read all the Attachments, and listen to the interview with Lilly, (George's daughter), you will learn about George's life, business partners, (Gere Restituto, El Adobe Hotel), the selling of liquor to police, the payoffs, the crooked feds, the fancy cars and suits, and the secret buzzer from the main house to the basement, plus much more. For never learning how to read and write, this man accomplished notoriety in the bootlegging era and the Italian community. Great example of history.

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Attachments: Bakersfield Californian, Interview with Lilly, Historic Kern Quarterly Bulletin, Bakersfield morning echo, various pictures, Corresponding Draft EIR Documents.

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Attachments for page 1

APB Cover sheet and SHPO Acknowledgement

Letter to SHPO from John Powell

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Caltrans – 06-48460/06-Ker-58-31.7/55.9

Working Draft Document – 20 February 2010

Reprinted – 13 May 2014

FOR THE OFFICE OF HISTORIC PRESERVATION

STATE OF CALIFORNIA

IN THE MATTER OF THE DPR 523abd)
DOCUMENTATION REQUIRED FOR)
A DETERMINATION OF ELIGIBILITY)
TO THE NATIONAL REGISTER OF)
HISTORIC PLACES, *including*)

EA 06-48460/06-Ker-58-31.7/55.9
OHP Notification No. RA 683.195.737 US
TRIP: Thomas Roads Improvement Program
Proposed West Park Alignment
Centennial Corridor Project

Multiple Contiguous Properties,

(Supplement to Locally Registered Properties)

for

THE ASSOCIATED HOMEOWNERS
OF GREATER WEST PARK,

TRANSMITTAL OF JOHN EDWARD
POWELL IN SUPPORT OF THE DPR
523abd DOCUMENTATION REQUIRED
FOR A FORMAL DETERMINATION
OF ELIGIBILITY FOR LISTING IN THE
NATIONAL REGISTER OF HISTORIC
PLACES – AT THE LOCAL LEVEL OF
SIGNIFICANCE – WITH DISTRICT
STATUS UNDER SECTION 106 OF THE
NATIONAL HISTORIC PRESERVATION
ACT, 36 CFR §§ 800.1-800.16

Property Owners in and of the
County of Kern, including the
City of Bakersfield, California,

CALIFORNIA STATE OFFICE OF
HISTORIC PRESERVATION, et al.,

Concerned Parties in Common.

JOHN EDWARD POWELL transmits:

AMICUS PRESERVATION BRIEF

*Prepared by John Edward Powell, as an independent cultural resource assessment, on behalf of
the Associated Homeowners of Greater West Park, inclusive of
Kern Woods, Garnsey Avenue and Stockdale Manor*

**National Register Eligibility of Historic Building Districts and Public Landscapes
Historic Kern Woods, Garnsey Avenue, Stockdale Manor and Centennial Park
Bakersfield, California
Circa 1940-1970**

Abstract

For well over half a century, three (3) historically distinguished and contiguous residential neighborhoods, located two miles southwest of downtown Bakersfield, California, have reached maturity relatively undisturbed by public encroachment. Initially developed under the professional direction of a nationally and regionally significant group of architects, architectural designers,

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STATE OF CALIFORNIA – THE NATURAL RESOURCES AGENCY
OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

EDMUND G. BROWN, JR., Governor



RECEIVED
12.05.2013
RECEIVED

November 27, 2013

John Edward Powell
512 North Stine Road
Bakersfield CA 93309-1183

Dear Mr. Powell:

Thank you for making your Amicus Preservation Brief (APB) available to myself and my Deputy State Historic Preservation Officer. It provided interesting information about these Bakersfield neighborhoods. However, if you wish for this information to be made a part of the record related to the Route 58 Freeway Extension Project, then we would have to be able to make it freely available to Caltrans as the lead agency on the project and it would become part of the public record.

You might also consider using the information in the APB to prepare nominations for the districts to be listed on the National Register of Historic Places. This would formalize their status as historic properties for purposes of Section 106 of the National Historic Preservation Act as well as the California Environmental Quality Act. If you would like to discuss the process of preparing a National Register nomination, please contact Jay Correia, Registration Unit Supervisor, at (916) 445-7008 or Jay.Correia@parks.ca.gov.

Sincerely,

Carol Roland-Nawi, PhD
State Historic Preservation Officer

GP-35

John Edward Powell
512 North Stine Road
Bakersfield, California 93309 1183

22 October 2013

Dr. Carol Roland-Nawi, SHPO
Attention: Jenan Saunders, Deputy SHPO
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, California 95816

Sent USPS Certified Mail No. 7012 2210 0002 2998 5211

Re: Caltrans Route 58 Freeway Extension Project, Bakersfield (Follow-up correspondence)

Dear Dr. Roland-Nawi:

Under the cover of previous correspondence dated 8 October 2013 (USPS EG 425 334 561 US, delivered to your office 9 October 2013), I have made available for your inspection an Amicus Preservation Brief (APB). This APB had been previously and repeatedly referenced in both electronic mail and Certified Mail as addressed to various agencies and parties – including Caltrans and your predecessor – involved in the environmental review process for the Route 58 freeway extension project in Bakersfield.

Over 1,200 pro bono hours were required to produce the document.

It remains our understanding that the HPSR associated with Route 58 (west) has just been reviewed by your office, or is still in the process of being reviewed. I believe you will determine that the voluminous historic building documentation compiled in this APB is not found in similar depth or concentration in the HPSR. Although Caltrans District 6 specifically wrote to ask to see this documentation, it chose *not* to meet with my representative to make arrangements for access. Its reasons remain unclear to me. This APB has been, as stated previously, an existing local survey for the Route 58 study area since 2010. It has several times been presented in draft format to the press and at open neighborhood association meetings. Property owners, Caltrans engineers, and environmental coordinators in attendance on those occasions were provided the opportunity to view the document in the presence of a fair witness. ←

This APB is for your personal review only. Your Deputy SHPO may also review the document. It is not for your distribution to Caltrans administrative or environmental personnel, their private-sector consultants or OHP liaisons, or any Bakersfield or Kern County agencies allied with the freeway project.

Please note that all rights to this unpublished proprietary research are expressly reserved. The APB, as provided, is watermarked accordingly throughout the document. You personally represent the only entity to which the current draft document has been released without the presence of a fair-witness observer.

A self-addressed return envelope, with postage and tracking affixed, was included for your return of the document, as bound, after your full and complete inspection of the scope of its data.

Yours truly,

John Edward Powell
johnedwardpowell@yahoo.com
<http://historicfresno.org/jpbio.htm>

Previously sent: 175-page Amicus Preservation Brief and a nine-page South Garnsey Avenue Addendum, delivered 9 October 2013, as signed and accepted by I. Sarwar at the OHP

Attached: USPS Tracking and Delivery Confirmation

cc: Alan S. Wertheimer, Jackoway Tyerman Wertheimer Austen Mandelbaum Morris & Klein

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Attachments for page 2

**South Garnsey Ave.
Armstrong-Womack Historic District
Corresponding Draft EIR Documents**

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**SOUTH GARNSEY AVENUE
BAKERSFIELD, CALIFORNIA**

**Armstrong-Womack Historic District
1956**

Worksheets for Addendum to 2010 Amicus Preservation Brief

Context for

JAMES DONALD WOMACK RESIDENCE (1957)

**Residence, Kern County Land Company outbuilding, and underground bomb shelter
201 South Garnsey Avenue
Bakersfield, California**

Street Context Properties

100 South Garnsey Road

Michael Shinault Residence (Built 1978/1984)

Occupation: Accountant
Building permit (4-11-1978)
Builder: James Womack
\$43,200
Daily Report (4-15-1978, p. 1)

195 South Garnsey Avenue
Formerly 3839 Stockdale Hwy

Omar A. Cavins Residence (as of 1956 subdivision date)
Owner circa 1946-1961: Omar Allen Cavins (1889-1971)¹
Occupation: Petroleum Geologist, UC Berkeley (BS, 1915)
Occupant circa 1957 (Omar [Jr.] and Phyllis Cavins)
Occupation: Manager, Floyd's Inc.

*Known locally as the historic
site of a bootlegging operation*

Honorable Earle Gibbons Residence (Owner 1961)
Occupation: School Teacher (1957), Realtor (for Elmer
F. Karpe, 1958), Attorney and Municipal
Court Judge (1962+)
Joan Martinson Gibbons (Spouse)
Occupation: Registered nurse, housewife, and twin sister
of Jean Wheelan of 221 South Garnsey Ave
Address changed circa 1965
Swimming pool permit (6-4-1969)

198 South Garnsey Avenue
Formerly 3729 Stockdale Hwy

Albert D. Burton Residence (Demolished 1973)
Occupation: Oil field worker, Golden Bear Oil Company
Address changed circa 1961
Property still occupied in 1971
Property vacant in 1972
Demolition permit: Issued to David Beauchamp (5-14-1973)

Note: Albert Dewayne Burton (1883-1972) was born in
Pennsylvania where he worked in the oil fields until 1911,
after which he came to California to work in McKittrick.

Assembled pro bono by John Edward Powell: 10-28 December 2012

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Draft 14: Worksheets (Revised 14 March 2013)

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198 South Gamsey Avenue
(continued)

In 1933, Burton moved to Bakersfield to work for Golden Bear Oil Company. Of his four children, his daughter Jackie Beauchamp resided in Bakersfield. He was buried at the historic Academy Cemetery outside Clovis, California in a Christian Science service. — "Obituaries," *Bakersfield Californian*, 14 January 1972, 43.

200 South Gamsey Avenue

Henry Karber Residence (Built 1960)
Occupation: School custodian
Adeline Karber (Spouse)
Occupation: Drafter, County Assessor
Building permit (12-18-1959)
Notice of completion (4-22-1960 – Bk. 3261, p. 0460)
Builder: Jones-Womack
\$18,000
Daily Report (12-26-1959, p. 1)

201 South Gamsey Avenue

James Donald Womack Residence (Built 1957)
Occupation: Building contractor
Dawn Jones Womack (Spouse)
Building permit (5-14-1957)
Notice of completion (9-30-1957/10-1-1957)
Builder: Jones-Womack
\$16,200
Daily Report (5-18-1957, p. 1)

205 South Gamsey Avenue

Jones-Womack Speculative House (Built 1958)
Carl L. Peterson Residence (1958)
Occupation: Employee, PG&E
Building permit (4-28-1958)
Builder: Jones-Womack
\$12,400
Daily Report (5-1-1958, p. 1)

Notice of completion (8-18/19-1958 – Bk. 2995, p. 0015)
Tract 1938, Lot 7 (205 South Gamsey Road)
Builder: Jones-Womack
Legal owner: James D. and Dawn Womack
201 South Gamsey Avenue

206 South Gamsey Avenue

Frank Clegg Residence (Built 1959)
Occupation: Oil worker, Atlantic Richfield Oil Company
Building permit (10-29-1958)
Contract (10-22-1958)
Builder: Jones-Womack
\$14,000
Daily Report (11-1-1958, p. 1)

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209 South Garnsey Avenue	<p><u>Lemuel Freeman Residence (Built 1958)</u> Occupation: Employee, Morelock's Nursery Building permit (4-28-1958) Builder: Jones-Womack \$13,000 <i>Daily Report</i> (5-1-1958, p. 1)</p>
212 South Garnsey Avenue	<p><u>Ronald Duncan Residence (Built 1958)</u> First owner Occupation: Salesman, Calray Cookies <u>Karl S. Wahl Residence</u> (Second owner, circa 1959) Occupation: Realtor, Elmer F. Karpe Real Estate Hilda Wahl (Spouse) Occupation: Director of Nursing, San Joaquin Hospital Building permit (9-25-1957) Builder: Jones-Womack \$13,000 <i>Daily Report</i> (9-28-1957, p. 1)</p> <p>Note: Karl Siem Wahl (1903-1988) was born in Nome, North Dakota. He was raised in Bowman, North Dakota, where he was educated in a one-room schoolhouse. He attended business college in Bismarck, North Dakota, then married in 1929. In 1937, he moved to Bakersfield where he was a member of Emanuel Lutheran Church. — "Obituaries," <i>Bakersfield Californian</i>, 9 January 1988, B4.</p>
218 South Garnsey Avenue	<p><u>Clinton C. Sullivan Residence (Built 1958)</u> First owner Occupation: Carpenter, Jones-Womack <u>Harold R. Canaday Residence</u> (Second owner, circa 1960) Occupation: Engineer, Richfield Oil Company Building permit (4-30-1958) Builder: Jones-Womack \$11,504 <i>Daily Report</i> (5-3-1958, p. 1)</p>
221 South Garnsey Avenue	<p><u>Jay Alvin "Al" Wheelan Residence (Built 1959)</u> Occupation: Salesman, Elmer F. Karpe Real Estate President, Karpe Real Estate Center Developer, land and subdivision developments Contract (1-6-1959) Building permit (1-16-1959) Builder: Jones-Womack \$19,200 <i>Daily Report</i> (1-22-1959, p. 1) Addition for Jay A. Wheelan Building permit (12-16-1971) Builder of addition: Moore Gibbons Moore "Obituaries," <i>Bakersfield Californian</i>, 22 February 1987, C16.</p>

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221 South Garnsey Avenue
(continued)

Robert Karpe Residence (Owner circa 1976)
Occupation: Chairman, Karpe Real Estate Center

Note: Under Governor Ronald Reagan, Robert Karpe was appointed California State Real Estate Commissioner. Under President Ronald Reagan, Karpe served as President of the Government National Mortgage Association (G.N.M.A.) in Washington, D.C. Karpe was awarded an Honorary Doctorate Degree by California State University, Bakersfield in 2005.

255 South Garnsey Avenue
Formerly 301 S Garnsey Ave

James F. Dandy Residence (Built 1960) First owner
Occupation: President, J. L. Dandy & Company
Ken Lifquist Residence (Second owner circa 1964)
Occupation: Teacher, Beardsley School
Salesman, Elmer F. Karpe Real Estate
Building permit (1-22-1960)
Builder: Dandy Homes, Inc.
\$16,520
Daily Report (1-28-1960, p. 1)
Pool permit (4-8-1964)

275 South Garnsey Avenue

George Malcolm Stahl Residence (Built 1960)
Occupation: Farmer, Romero Farms (Panama District)
and Beatrice Foods
Building permit (3-11-1960)
Bonds (3-3-1960 – Bk. 3244, p. 0712; Bk. 3244, p. 0714)
Builder: Jones-Womack
\$21,000
Daily Report (3-16-1960, p. 1)

295 South Garnsey Avenue
Formerly 319 S Garnsey Ave

Jones-Womack Speculative House (Built 1959)
Alex D. Blake Residence (1959)
Occupation: Manager, Elmer F. Karpe Real Estate
Building permit (7-15-1959)
Builder: Jones-Womack
\$18,000
Daily Report (7-23-1959, p. 4)
(Appears misprinted as 200 South Garnsey Avenue)

300 South Garnsey Avenue

Edward D. Poole Residence (Built 1960)
Occupation: Salesman, Burr Realty
Building permit (10-16-1959)
Builder: Jack L. Brown (b. 12-4-1929 –)
\$15,000
Daily Report (10-22-1959, p. 1)
"Miss Cox Becomes Bride of Jack Brown; Journey North,"
Bakersfield Californian, 2 November 1950, 24.

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306 South Gamsey Avenue	<p><u>Edward D. Poole Speculative House</u> (Built 1960) <u>John F. Hardy Residence</u> (circa 1961) Occupation: British golf pro, Stockdale Country Club Building permit (10-16-1959) Builder: Jack L. Brown (b. 12-4-1929 –) \$15,000 <i>Daily Report</i> (10-22-1959, p. 1) Note: General contractor Jack L. Brown was born in Taft, California. He graduated from Bakersfield High School in 1948, where he was a Block B letterman. From 1948 to 1951, Brown worked as an apprentice carpenter for builder William A. Drennan (1914-1965) before serving during the Korean War with Company B of the 835th Engineers. <i>Grantee-Grantor Index</i> (Bk. 2040, p. 0445)</p>
317 South Gamsey Avenue	<p><u>Harold T. Ricards Residence</u> (Built 1959) Occupation: Merchant, Ricards Bootery Building permit (4-29-1959) Builder: Lewis V. Christensen (b. 11-4-1923 –) \$25,000 <i>Daily Report</i> (5-2-1959, p. 1) Note: General contractor Lewis V. Christensen was born in Santa Ana, California. He served in the United States Navy during World War II as an electronics technician. <i>Grantee-Grantor Index</i> (Bk. 1308, p. 0016)</p>
320 South Gamsey Avenue Formerly 3750 Elcia Drive	<p><u>Edward L. R. Armstrong Residence</u> (Built circa 1940) Occupation: Broker, Ward D. Watson Realty Moved to this site in 1958 (Tax Assessor's record date) Building permit (12-2-1957) Sewage pit</p>
321 South Gamsey Avenue	<p><u>David F. Snedden Residence</u> (Built 1966) Occupation: Representative, Bakersfield Production Credit Association (Farm Loans) Cattle Rancher, Snedden Land & Cattle Company, Santiago Creek (Maricopa) and Lockwood Creek (Ventura) Building permit (7-25-1966) Notice of completion (11-18-1966 – Bk. 3997, p. 0192) Builder: "Jim Womack" \$23,000 (see also 1968 alterations, \$4,402) <i>Daily Report</i> (7-28-1966, p. 1); <i>Daily Report</i> (8-10-1968, p. 1) Horse stall ("J. D. Womack," builder, no construction date)</p>
330 South Gamsey Avenue	<p><u>Jack L. Gammon Residence</u> (Built 1961) Occupation: Farmer, Maricopa District Building permit (3-6-1961); Deed (Bk. 3353, p. 0390) Builder: Jones-Womack \$18,000 <i>Daily Report</i> (3-9-1961, p. 1)</p>

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3755 Elcia Drive	<u>Benjamin Johnson Residence</u> (Built circa 1950) Occupation: Production Manager, Richfield Oil Company First assessed in 1958 (Tax Assessor's record date)
3749 Elcia Drive	<u>Joan Carlton Residence</u> (Built circa 1920 and 1967) Occupation: Bookkeeper, Walden Construction Unit 1(1920); Unit 2 (1967) Tax Assessor's record dates Builders: Undetermined \$2,000 (Fire damage repairs) <i>Daily Report</i> (6-4-1966, p. 1)

Notes about principal developers and builders of Tract #1938 and allied parcels

Jones-Womack General Contractors

<u>Glen J. Jones</u>	Born: 6-29-1901 (Oregon) Died: 2-5-1958 (Kern) "Final Services Saturday for Glen J. Jones," <i>Bakersfield Californian</i> , 7 February 1958, 22.
<u>James Donald Womack</u>	Born: 1-15-1923 (Louisiana) Died: 9-17-2003 (Kern) "Funerals," <i>Bakersfield Californian</i> , 23 September 2003, B2.
<u>Gwendolyn "Dawn" Womack</u>	Born 1-19-1922 (California) Died: 5-1-2005 (Kern) "Funerals," <i>Bakersfield Californian</i> , 5 May 2005, B2.

Tract Map 1938 (Bk. 0009, p. 0115) – 20 December 1956

Subdividers: Edward L. R. Armstrong and Monica D. Armstrong
Civil Engineer/Surveyor: W. Alan Harrison, L.S. #2263

<u>Edward L. R. "Jack" Armstrong</u>	Born: 10-20-1914 (Colorado) Died: 8-12-2001 (Kern) "Funerals," <i>Bakersfield Californian</i> , 16 August 2001, B2.
<u>Monica D. Armstrong</u>	Born: 30 June 1913 (South Dakota) Died: 6 June 2004 (Kern) "Funerals," <i>Bakersfield Californian</i> , 8 June 2004, B3.

Note: The Armstrongs were principal supporters
and namesakes of the E. L. "Jack" and Monica
Armstrong Youth Center, Boys & Girls Clubs of
Kern County, 801 Niles Street at Beale Avenue in
East Bakersfield, California.

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W. Alan Harrison

Born: 18 April 1910 (Oklahoma)
Died: 16 August 1980 (Kern)
"Obituaries," *Bakersfield Californian*, 18 August 1980, D8.

Mr. Harrison was born in Okmulgee, Okla., on April 18, 1910 and had resided in Kern County since 1946. He was a licensed land surveyor and at the time of his retirement was the senior partner in Harrison-Lusich and Associates. He has since worked as a land developer and developed many subdivision[s] in Bakersfield, Three Rivers, Bear Mountain and helped relocate Kernville and develop the Kern River Valley. He was a member of the First Presbyterian Church and at the time of his death was serving in the capacity of Elder-Trustee. He was also a member of the Bakersfield Lodge #224, F&AM, East Bakersfield Rotary Club, an active supporter of the Salvation Army and the Boy Scouts and was a member of the Kern Karavanners Trailer Club.

Note: Civil Engineer W. Alan Harrison, who laid out a portion of Historic Kern Woods, shares credit for the phased design of La Cresta Heights with Ashley Cooper (1883-1948), a mechanical and civil engineer for the Kern County Land Company and Kern River Water Storage Company, and Richard E. White (1884-1976), a Naval Academy alumnus and civil engineer who, with landscape architect Howard Gilkey (1890-1972), designed Hart Park, its famous pool, and the park's historic water wheel.

The Armstrong-Womack Historic District

The Armstrong-Womack Historic District is a secluded 1956 pocket subdivision. It is for the most part comprised of late 1950s and early 1960s custom-built upper-middle-class California Ranch-style houses. Over half of the houses in the district were built by James Donald Womack (1923-2003), principal of Jones-Womack Construction, either in partnership with Glen J. Jones (1901-1958) or as the sole builder after Jones' death. The homes were originally owned almost exclusively by a close-knit circle of friends working in the construction, real estate development, and real estate sales professions who were socially prominent and politically influential in the community, as well as by members of long-established or historic farming and cattle ranching enterprises in Kern County. A handful of older properties dating from the 1920s, 1930s, and 1940s served as bookends to the short street district, including a site considered locally historic for an early-day bootlegging operation on the premises. The subdivision also preserves underground bomb shelters built after the Cuban Missile Crisis of October 1962.

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Supplemental note regarding 195 South Garnsey Avenue and Tract #1938

¹ Although considerable attention has been paid to the earlier residency of George Barsotti at this site (Lois Henry, *Bakersfield Californian*, 12-29-2012), as well as to the site's associated criminal history during Prohibition (1920-1933), much of this property's significance is vested in a later period of ownership by Omar A. Cavins (and to any alterations Cavins may have made to the property after 1946, and prior to 1961). The Cavins context, unlike the earlier Barsotti tenure, has a direct relationship to the subdivision of acreage comprising Tract #1938, designated the "Armstrong-Womack Historic District." The latter development far exceeds the minimum 66%% statistical requirement for listing as a residential historic district under National Register Criterion C. The district additionally appears to qualify under the seven (7) guidelines and the "Rule of Thumb" for National Register integrity compliance, including acceptable material changes that have been adopted over time in response to state and national energy conservation goals and mandates. For associated National Register of Historic Places Criterion B justifications, see also: Baum, Willa K., project director and interviewer, "Omar Cavins: Coming of Age in Bakersfield," *Earl Warren Oral History Project*. (Berkeley: Bancroft Library, Regents of the University of California, 13 January 1970).

Note about the preparer

John Edward Powell, A.B., M.A., studied design, art history, and architectural history at Stanford University and Stanford-in-Britain. He completed graduate work at Stanford University; California College of Arts and Crafts, Oakland; and the University of Idaho, Moscow, where he also taught basic design in the School of Architecture. He subsequently undertook sabbatical studies at Haystack Mountain School, Deer Isle, Maine. Since 1977, Powell has worked professionally in the fields of historic preservation and California architectural history. His formal emphases are architectural biography and the archival conservation of architectural records, renderings, and drawings. His research has been recognized by the National Endowment for the Arts; College of Fellows Fund of the American Architectural Foundation; California Council of the American Institute of Architects; California Committee for the Promotion of History; Leon S. Peters Foundation; a 2005 Governor's Award in Historic Preservation with the Fresno County Public Library; and as one of 22 authors contributing to *Architecture, Ethnicity and Historical Landscapes of California's San Joaquin Valley*, which received a 2009 Governor's Award in Historic Preservation for its publisher, the Planning and Development Department, City of Fresno. From 2000 to 2006, Powell taught part time in the fine arts and art history program at Bakersfield College, and served an academic term as interim art gallery director.

– Draft 14: Revised 14 March 2013 –

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Intellectual Property Representative: Alan S. Wertheimer
Jackoway Tyerman Wertheimer Austen Mandelbaum Morris & Klein
Los Angeles, California
310.553.0305

Assembled pro bono by John Edward Powell: 10-28 December 2012

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Draft 14: Worksheets (Revised 14 March 2013) Page 8 of 9

Appendix

Architectural Integrity and the Guiding “Rule of Thumb”

The seven (7) principal observations applied to the properties identified in this addendum to the 175-page 2010 Amicus Preservation Brief, and used to assess the affirmative presence of architectural integrity, are defined as follows:

Location (the properties have not been physically relocated from their original sites or, if relocated, have been located at the present sites for over 50 years).

Design (the architectural idioms of the properties and/or other distinguishing stylistic characteristics are identifiable, classifiable, and relevant to local, regional, state, or national architectural history).

Setting (the principal views looking toward the properties, and the principal views looking away from the properties, have not been unduly altered by a loss of neighboring structures; or have not been unduly obstructed by man-made forms or radical changes in the natural terrain. Landscapes – both indigenous and ornamental – are expected to display anticipated, thus acceptable, growth and maturity. Growth and maturity do not negate considerations of the historic setting, although a loss of landscape may).

Materials (the properties retain a reasonable percentage of their original building product(s) – generally 75% or more – as spelled out in original architectural plans and specifications, again subject to acceptable evolutionary changes expected from generation to generation).

Workmanship (the properties continue to reflect the prevailing methods, finishes, and standards of construction as originally engineered at the time of their completion).

Feeling (the properties retain reasonable physical suggestions of their original place in time, without necessarily being “locked” in the past, since all properties undergo acceptable evolutionary changes from generation to generation).

Association (the properties retain reasonable but more intuitive suggestions of their context in time, with an ability to evoke an awareness of their era of origin, as well as the significant events that defined that era socially, politically, and culturally).

Although properties may display aspects of each of these seven (7) components, it is neither required nor essential that all seven (7) be absolutely evident concurrently.

“The Rule of Thumb”

The guiding “Rule of Thumb” as applied to establish architectural integrity is stated as follows: Were the original architects, builders, owners, members of the owners’ families, or immediate neighbors to view the properties or neighborhood today, would they definitively be able to recognize the properties or neighborhood?

If so, the basic integrity standard has been met, in spite of any questions regarding material condition, as long as any adverse material conditions are clearly reversible. The material condition of properties (e.g., paint, shingles, masonry, etc., in need of repair) is evaluated separately from integrity.

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State of California – The Resources Agency DEPARTMENT OF PARKS AND RECREATION PRIMARY RECORD		Primary # _____ HRI # _____ Trinomial _____ NRHP Status Code <u>6Z</u>
Other Listings _____ Review Code _____	Reviewer _____	Date _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-11P1. Other Identifier: Tract No. 1938*P2. Location: ☐ Not for Publication ☒ Unrestricted
(and P2b and P2c or P2d. Attach a Location Map as necessary.)*a. County Kern*b. USGS 7.5' Quad Gosford, CA Date 1973 T _____; R _____; ¼ of Sec _____; B.M. _____c. Address See P3a for list of addresses City Bakersfield, CA Zip _____

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

See P3a for list of assessor parcel numbers

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Tract 1938 was subdivided in 1956 and developed over the next four years. This small tract originally featured 12 generally rectangular parcels positioned along the section of South Garnsey Avenue north of Elcia Drive and terminating just south of Stockdale Highway. Eleven of the properties are located within the survey area of this project and were built between 1957 and 1960. They are architecturally similar houses but have individual design elements and characteristics. The tract is located in an unincorporated county island roughly bounded by State Route 58 and Stockdale Highway to the north, Ming Avenue to the south, H Street to the east, and Montclair Street to the west.

The residence located at 200 South Garnsey Avenue has a composition shingle, cross-gable roof with wide eaves. The building has an L-shaped footprint. The walls are clad in stucco, and fenestration includes aluminum sliding windows. The main entrance is located on the interior corner of the main façade. The three-wall garage projects from the south end of the main façade, and is partially supported by square wood posts. The house located at 201 South Garnsey Avenue has a wood-shingle Dutch-hip roof with a hip-roof projection to the north and wide eaves. A small square (See Continuation Sheet)

*P3b. Resource Attributes: (List attributes and codes) HP2 – Single family property*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: Photograph 1, 200 S. Garnsey Ave., facing east.*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
1956-1960, Kern County Assessor Records*P7. Owners and Addresses:
(See Continuation Sheet)*P8. Recorded by: (Name, affiliation, address)
Polly Allen/Joseph Freeman/Toni Webb
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618*P9. Date Recorded: March 2009 /
December 2012*P10. Survey Type: (Describe) Intensive*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"

*Attachments: ☐ None ☐ Location Map ☒ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-11
*NRHP Status Code 6Z

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential*B5. Architectural Style: Ranch*B6. Construction History: Tract subdivided in 1956; houses = between 1957 and 1960; fallout shelters = summer of 1962.*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: Womack & Jones Building Contractors

*B10. Significance: Theme n/a Area n/a
Period of Significance n/a Property Type n/a Applicable Criteria n/a

Tract No. 1938, the individual residences, and two fallout shelters associated with two of the residences do not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor do they appear to be historical resources for the purposes of CEQA. Bakersfield experienced tremendous population growth after World War II that generated a wave of new development. There was a flood of veterans to California immediately following the war, and with it came a great need for more housing. Throughout the decade, Kern County's population remained greater than the available houses, and it was many years before supply caught up with demand. The city's boundaries began to widen as outlying agricultural land was converted to residential tracts, and by the end of the 1950s, the housing gap had successfully been bridged. Twenty square miles of residential development took place in the Greater Bakersfield area from 1945 to 1955, which included approximately 12,000 new houses built between 1950 and 1955. In particular, the land straddling Stockdale Highway southwest of downtown was the scene of development.

The residential area bounded by Stockdale Highway to the north, Apache Avenue to the south, Real Road to the east, and the Stine Canal to the west was mostly developed at the end of the 1950s. Prior to this time, this land was agricultural with only a handful of residences, and Elcia Drive (via Real Road) was the only paved road. In 1956, Edward and Monica Armstrong subdivided their land between the Stine Canal and the west terminus of Elcia Drive as Tract 1938. This called for the construction of South Garnsey Road, though the residential tract included only the west side of the street. It fully developed by the end of that decade.

Before 1945, subdivisions predominately had rectilinear street configurations and parcels were for the most part uniform in size and shape. However trends in residential development changed during the postwar era. Subdivision planners began to employ curvilinear and cul-de-sac streets, both to enhance aesthetics and control the speed of vehicular traffic. Lot sizes decreased and a boom in housing demand led to the mass production of building materials, more (See Continuation Sheet)

B11. Additional Resource Attributes: _____

*B12. References: Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968; "Kern Homes Crisis Aired," Los Angeles Times, 7 December 1945; "Three Hundred Veterans Join Rush for 90 Homes," Los Angeles Times, 22 May 1946; "Shutdown on Veterans' Housing Project Averted," Los Angeles Times, 28 December 1946; "Minter Field Units to House 400 Families," Los Angeles Times, 2 February 1947; "Housing Pact Canceled by Bakersfield," Los Angeles Times, 7 March 1952; Kern County Tract Maps, Book 9 of Maps, Page 115, Tract No. 1938, 20 December 1956. See footnotes.

B13. Remarks:

*B14. Evaluator: Joseph Freeman, Toni Webb, Rand Herbert*Date of Evaluation: December 2012

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

See continuation sheet.

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Recorded by P. Allen, J. Freeman, T. Webb

Date March 2009; December 2012

Resource Name or # (Assigned by recorder) Map Reference No. 09-11

☒ Continuation ☐ Update**P3a. Description (continued):**

cupola is located on the north projecting roof ridge. The house is clad in stucco with a partial brick apron and has replacement vinyl sliding windows. The main entrance is located under an interior corner on the main façade, under a continuous-roof porch. The house has two interior chimneys. The property includes a detached garage that was converted to an attached living space, as well as a detached garage/office space added in 1962. A commercial garage building, constructed in by 1968, is located northwest of the main residence. In addition, the property includes a subterranean fallout shelter constructed in the summer of 1962. The structure (Photographs 12-14) is constructed entirely of board-formed concrete and is approximately 10 feet by 12 feet with a 2-foot extension which provides for a nearly-vertical wood stairway that folds to allow the toilet facility (a simple hole in the ground) behind the stairs. The ceiling was originally clad with acoustic tile that has since been removed. An air intake with what appears to be an electrical blower is located on the shelter's north wall. The aboveground intake pipe with screened hood is visible at the garage's northwest (exterior) corner. The exhaust pipe extends from near the stairs up through the garage's concrete slab. An interior steel water tank is located in the northeast corner of the shelter. Simple wood shelves near the water tank are original to the structure. The steel hatch door was removed within the last five years. Presently the shelter is used for storage.¹

The house located at 205 South Garnsey Avenue has a hipped roof with several hip-roof projections and wide eaves. The roofing is modern composition shingles. One projection to the southwest contains a two-car garage with a metal panel door. The walls are clad in stucco and horizontal wood siding. Fenestration consists of multi-pane, metal casement windows of varying sizes and configurations. The main entrance is set back on the primary façade and located under an extended roof porch. The residence located at 206 South Garnsey Avenue is topped with a wood-shingle hipped roof with wide eaves. The garage is located on a hip-roof projection to the north and has a modern roll-up door. The main façade has a westward hip-roof projection. The house has modern beveled horizontal metal siding. Fenestration includes metal casement and replacement vinyl windows. A short concrete block planter runs the width of the front façade.

The house located at 209 South Garnsey Avenue has a modern-tile hipped roof, with wide, closed eaves and a projecting hip-roof garage. The house is clad in stucco, and has metal sliding windows. The main entrance is set-back behind a metal gate. The residence located at 212 South Garnsey Avenue sits on an L-shape footprint. It has a side-gable roof with a projecting cross Dutch-hip two-car garage. The roof has composition shingles and wide eaves. The house has vertical board-and-batten wood siding and replacement vinyl windows. The main entrance is located on a setback wall on the primary façade. The panel garage door faces north. This property also includes a subterranean fallout shelter (Photographs 15-19) in the backyard. Constructed in the summer of 1962, this shelter is located beneath a concrete block planter reportedly built during the shelter's construction. The shelter is constructed of concrete block walls with a board-formed concrete ceiling and poured concrete floor. A steel bulkhead provides access to the shelter's wood stairway that leads to long hallway. The main room measures approximately 20 feet long and 12 feet wide and includes a hand-cranked centrifugal intake blower on the north wall and the exhaust pipe is located within the hallway. The aboveground intake pipe with screened hood and exhaust are still extant within the planter. The structure originally included two steel water tanks buried within the planter (outside the shelter) which have recently been removed.²

The residence at 218 South Garnsey Avenue is topped with a composition shingle hip roof, and has wide eaves. A two-car garage with replacement rollup door is located in a hip-roof projecting toward the south. A westward hip-roof projection extends from the main façade. The entrance is located under a shed-roof porch which is supported by a stone column. The house has stucco siding with a stone apron, and replacement vinyl sliding windows. The house located at 221 South Garnsey Avenue has a modern-tile hipped roof with wide eaves. The walls are clad in stucco siding and wood board-and-batten siding. Fenestration includes two bays on the main façade with replacement vinyl windows and stone veneer apron, as well as fixed replacement vinyl windows and metal casement windows. The main entrance is located under an extended-roof porch. A detached two-car garage with a hip roof and metal door is located behind the residence.

¹ Keith Womack, personal communication with Toni Webb, JRP Historical Consulting, LLC, December 12, 2012; Mattie Padilla, personal communication with Toni Webb, JRP Historical Consulting, LLC, December 12, 2012.

² Steve Pierce, personal communication with Toni Webb, JRP Historical Consulting, LLC, December 12, 2012
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☒ Continuation ☐ Update

The house located at 255 South Garnsey Avenue has a composition shingle cross-gable roof above the two-car garage. The house has board-and-batten wood siding above a brick veneer base, and single-hung aluminum windows. The recessed entrance is located beneath a shed-roof porch which is supported by square wood posts with decorative brackets. The house located at 275 South Garnsey Avenue has a side-gable roof with two cross-gable projections, and topped with modern tile roofing. Both projections extend from the north end of the main façade. The larger projection extends slightly while the smaller one projects further east and contains the two-car garage. An exterior chimney is located on the larger projection. The house has horizontal wood and vertical board-and-batten wood siding. Fenestration includes metal windows.

Like 275 South Garnsey Avenue, the house located at 295 South Garnsey Avenue has a side-gable roof with two cross-gable projections. It has composition shingle roofing and wide eaves. The larger projection extends slightly while the smaller one projects further east and contains the two-car garage. The entrance is located under the large gable projection which is partially supported by a brick veneer column. The house has horizontal wood siding with a brick veneer apron, and aluminum sliding windows.

Tract 1938 has a rectilinear layout with asphalt streets, concrete gutters and squared curbs. Most of the properties feature a landscape strip between the curb and the concrete sidewalk. Each of the properties has a lawn in the front yard. Some yards have mature landscaping while others have young vegetation. Utility lines are generally located along wood poles behind the residences. South Garnsey Street terminates at the north end in a cul-de-sac and at the south end at the intersection with Elcia Drive.

Each of the surveyed properties consists of a Ranch house built between 1957 and 1960.

APN	Address	Date	Alterations and/or Additions	Photo #
149-320-01	200 S Garnsey Ave	1960		1
149-221-15, 149-320-05	201 S Garnsey Ave	1957	replacement windows; rear addition, converted garage to living space; fallout shelter, secondary garage.	2
149-320-06	205 S Garnsey Ave	1958		3
149-320-02	206 S Garnsey Ave	1958	replacement vinyl siding; some replacement windows; replacement garage door	4
149-320-07	209 S Garnsey Ave	1958	Replacement stucco siding; replacement tile roofing; fallout shelter	5
149-320-03	212 S Garnsey Ave	1957	Replacement vinyl windows	6
149-320-04	218 S Garnsey Ave	1958	Replacement windows and stucco siding, stone apron wall addition, altered porch	7
149-320-08	221 S Garnsey Ave	1959	Replacement windows and stucco; stone veneer added; replacement tile roofing	8
149-320-09	255 S. Garnsey Ave	1960		9
149-320-10	275 S Garnsey Ave	1960		10
149-320-11	295 S Garnsey Ave	1959		11

P7. Owners and Addresses (continued):

Property Address	Owner	Owner Address
200 S Garnsey Ave	Scott G. Garcia	776 Viola Ct. / Nipomo, CA 93444
201 S Garnsey Ave	Anthony and Mattie Padilla	201 S. Garnsey Ave. / Bakersfield, CA 93309
205 S Garnsey Ave	Charles and Lucia Haney	205 S. Garnsey Ave. / Bakersfield, CA 93309
206 S Garnsey Ave	Trishia L. Duer	206 S. Garnsey Ave. / Bakersfield, CA 93309
209 S Garnsey Ave	Steve and Betty Pierce	209 S. Garnsey Ave. / Bakersfield, CA 93309
212 S Garnsey Ave	Retha J. Miller	212 S. Garnsey Ave. / Bakersfield, CA 93309
218 S Garnsey Ave	Jessie and Monica Ramos	218 S. Garnsey Ave. / Bakersfield, CA 93309
221 S Garnsey Ave	Robert W. Karpe Family	PO Box 1968 / Bakersfield, CA 93303
255 S. Garnsey Ave	Lifquist	255 Garnsey Ave. / Bakersfield, CA 93309
275 S Garnsey Ave	Bill and Carolyn Howerton	275 S. Garnsey Ave. / Bakersfield, CA 93309
295 S Garnsey Ave	Lloyd and Shawna Burns	295 S. Garnsey Ave. / Bakersfield, CA 93309

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-11*Recorded by P. Allen, J. Freeman, T. Webb *Date March 2009; December 2012☒ Continuation ☐ Update**B10. Significance (continued):**

rapid building construction, and a uniformity in building designs. An entire subdivision could be developed within a year, and the houses generally looked the same, or at least shared similar characteristics. Additionally, many communities had adopted reformed zoning laws to segregate uses. Each specific classification (residential, commercial, and industrial) was allocated to certain areas with stipulated development standards and limitations. For example, single family residences were no longer constructed adjacent to a commercial strip or industrial yard. This particular subdivision incorporates the rectilinear street pattern common in the prewar era of housing development while following the postwar trend toward smaller lot sizes and general architectural homogeneity.

Cold War Fallout Shelters Context

The end of World War II marked the beginning of the Cold War and the 45-year struggle between the US and Soviet Union for “global political and military supremacy.”³ Fearing attacks from one another, the two nations each quickly formed alliances with like-minded countries for their joint defense. The effort to remain ahead in this new struggle also led to a nuclear arms race. The US had already shown its nuclear capabilities with the detonation of atomic bombs on Hiroshima and Nagasaki in August 1945. It took another four years for the Soviet Union to conduct its first atomic test. The US responded to the Soviets’ test with development of the more powerful hydrogen bomb, first tested in 1952. The following year the Soviet Union tested its own hydrogen weapon. Although both nations had nuclear weapons, at this time neither had means to convey these weapons long distance. It was not until the development of intercontinental ballistic missiles and long range jet bombers that allowed either country to hit targets thousands of miles away, that a full-blown exchange of nuclear weapons was possible.⁴

The fear of nuclear war led the US to establish the Federal Civil Defense Administration (FCDA) in 1950. It was assigned with promotion and public education of survival methods should the nation be faced with nuclear attack. As part of its educational campaign, the FCDA distributed pamphlets that provided emergency procedures, instructions for construction of fallout shelters, and listed supplies needed to survive within a shelter for up to two weeks while radiation dissipated. Because the shelters were to be used long-term, they needed lighting, toilet facilities, water, and filtered air intakes and exhausts. While the FCDA promoted fallout shelter construction during the 1950s, the federal government did not develop a national program for their construction, nor did it provide any funding to the public for their construction. Construction of fallout shelters spiked in the late 1950s, particularly after 1957, when the Soviet Union demonstrated its technological potential to deliver a nuclear weapon, launching the world’s first artificial satellite. However, it was not until the early 1960s, when increased tensions between US and the Soviet Union and the subsequent funding augmentation of the nation’s civil defense programs sparked a wave of fallout shelter construction.⁵

Cold War tensions increased dramatically between 1960 and 1961 as a result of three distinct events that amplified the public’s anxiety over nuclear attack. In 1960, just before a US-Soviet summit meeting, the Soviet Union shot down an American U-2 spy plane over Soviet territory. Despite its initial denial, the US eventually conceded its spy mission, dooming hope for talks leading to a nuclear test ban treaty between the two nations. One year later, East Germany and the Soviet Union grew increasingly aggravated by the defection allowed by the open border between East and West Berlin, and threatened to occupy West Berlin. Because the US and its allies remained in West Berlin, President Kennedy publicly announced his willingness to defend West Berlin militarily. During this same period, animosity was building between the US and Cuba. The failed US-backed Bay of Pigs invasion in 1961 and subsequent embargo against Cuba in early 1962 forced Cuba to defend itself by obtaining long-range missiles from the Soviet Union. Upon discovery of the missiles, a US naval blockade of Cuba ensued for nearly two weeks, until the Soviets agreed to remove the missiles in exchange for the removal of US missiles in Turkey, thus ending what became known as the Cuban Missile Crisis.⁶ These events heightened

³ John S. Salmon, *Protecting America: Cold War Defensive Sites, A National Historic Landmark Theme Study* (Washington, D.C.: October 2011) 5.

⁴ John S. Salmon, *Protecting America: Cold War Defensive Sites*, 13; Caltrans, “Tract Housing in California, 1945-1973,” 35-37.

⁵ Caltrans, “Tract Housing in California, 1945-1973,” 37-40.

⁶ Caltrans, “Tract Housing in California, 1945-1973,” 37-40.

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the nation's fears about what many believed to be an impending nuclear war, and led private citizens across the country to seek information on construction of fallout shelters.

In Bakersfield, the county's Civil Defense Office reported in 1960 that it had distributed over 100,000 pieces of civil defense literature to the public, along with nearly 10,000 copies of construction plans for family shelters.⁷ The increased demand from the public for more information on private fallout shelters spurred the county's Civil Defense Office to construct a working model of an aboveground backyard fallout shelter on the grounds of the Kern County Museum in June 1960. The shelter was based on plans from the US Office of Civil Defense Mobilization's "Family Fallout Shelter" booklets and cost approximately \$700 to construct. The shelter is still on display at the museum's Pioneer Village.⁸

Around the same time, companies across the country began designing fallout shelters for sale to families. Prefabricated concrete and metal shelters, some of which were assembled by the property owner, were advertised in newspapers and magazines across the nation, sold door-to-door, and peddled at state and county fairs. Local companies, architects and builders also jumped into design and construction of private fallout shelters. McCarthy Steel & Tank Company, which built steel buildings and storage tanks in Bakersfield, began manufacturing and marketing prefabricated fallout shelters as early as 1960. McCarthy displayed at the Kern County Fair in 1960 its five-person steel shelter, complete with air blowers, filters, and bunks that was approved by the county's Civil Defense office. McCarthy's shelters ranged in cost from \$1,250 to \$2,500, plus installation.⁹

According to the county's Civil Defense Office, inquiries into fallout shelters and request for *The Family Fallout Shelter* booklet increased "100 fold" following the Berlin Crisis in mid-1961. Growing fears led more than 1,700 people to complete the *Individual and Family Survival* course offered by Bakersfield Evening High School (in cooperation with the county's Civil Defense Office) in 1961, and the City of Bakersfield reported issuing five building permits for the construction of subterranean fallout shelters in August. At that time at least three local construction firms had fallout shelter designs that had been approved by city and county building departments.¹⁰ One such company was likely Benum Pools, which designed a precast reinforced concrete shelter that was certified by city and county building departments and approved by county Civil Defense Office. In its marketing of its "U.S. Shelter," the company publicized that its concrete construction provided better acoustics than other steel shelters and its size (a basic model measured 11' by 12') and rectangular shape allowed for easy placement of furniture, shelving and wall hangings, so it could be used as a spare room. The company later introduced enhanced models with stairways and storage space.¹¹ The number of fallout shelter manufacturers reported nationally in mid-1961 increased from 40 in July to more than 120 companies with governmental approval in September. This, of course, does not include the unknown number of manufacturing companies and local contractors without federal or local approval who added this new construction type to their product line.¹²

Despite the certification or approval of some local fallout shelter plans by the City of Bakersfield's and Kern County's building departments, there were no regulations that permitted or forbade the construction of aboveground or subterranean fallout shelters for the county or city prior to September 1961. Although both the city and county notified the public that building permits must be obtained for the construction of fallout shelters, building departments used general health and safety specifications when approving their construction. This lack of standards was of particular concern in Bakersfield where residents were being denied permits because the proposed shelter plans were incompatible with existing building codes. In an effort to "encourage property owners to construct shelters for the purpose of protecting human life from the

⁷ "Individual Effort Important in Civil Defense," *Bakersfield Californian*, January 5, 1961, p. 20.

⁸ "Fallout Shelter," Kern County Museum, accessed online at www.kcmuseum.org/index.cfm?fuseaction=gal_item_detail&item_id=27, December 18, 2012; "Family Fallout Shelter," *Bakersfield Californian*, June 28, 1960, p. 18; "Bomb Shelter on Display at Kern County Museum," *Bakersfield Californian*, July 5, 1960, pp. 21-22.

⁹ "McCarthy Fallout Shelter Attracting Lots of Attention at County Fair," *Bakersfield Californian*, September 30, 1960, p. 28; Advertisement, *Bakersfield Californian*, August 19, 1961, p. 7; "Family Fallout Shelter," *Bakersfield Californian*, June 28, 1960, p. 18; "Bomb Shelter on Display at Kern County Museum," *Bakersfield Californian*, July 5, 1960, pp. 21-22; "Fallout Shelter," Kern County Museum.

¹⁰ "Fallout Shelter," *Bakersfield Californian*, August 29, 1961, p. 24.

¹¹ "Kern County Residents Begin 'Digging In'—Just In Case," *Bakersfield Californian*, September 16, 1961, pp. 19-20; "Pool Builder Has New Shelter Design," *Bakersfield Californian*, September 18, 1961, p. 24; "Stairway Adds to Shelter Livability," *Bakersfield Californian*, October 14, 1961, p. 28.

¹² Walter Karp, "When Bunkers Last In the Backyard Bloom'd: The Fallout Shelter Craze of 1961," *American Heritage*, Volume 31, Issue 2, February/March 1980, accessed online at www.americanheritage.com on December 17, 2012.

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hazard of radioactive fallout," the city adopted an emergency ordinance regulating shelter construction in September 1961. The following month, the county adopted its own ordinance (although not an emergency) that established the permitting process and specifications for construction of fallout shelters in unincorporated Kern County.¹³

The wave of construction appears to have been highest in 1961. Los Angeles and San Diego reported a dramatic increase in building permits issued for shelters in the fall of 1961; however, by the end of that year, as the Berlin Crisis and Bay of Pigs incident dropped from the headlines, home shelter construction dramatically declined.¹⁴ Research did not reveal the number of fallout shelters constructed in Bakersfield between 1960 and 1961. A review of the local newspaper does not identify any building permits for such structures issued during this time. Articles marketing specific buildings reveal two residential fallout shelters built during in fall of 1961 in the Greater Bakersfield (3309 Baylor Street and 2535 Beech Street) and model shelters built at Hartman Concrete Yard (Truxtun near Oak Street), and Neudeck Pool Company at 507 West Casa Loma Drive (presently Ming Avenue).¹⁵ Sales and rental advertisements also indicate extant shelters on the residential properties of 3408 Laverne Avenue and 921 Sylvia Drive, as well as a residence near Garces in late 1961.¹⁶ Additionally, a fallout shelter is reportedly located at 3904 Marsha Street (just east of the residential tract documented on this form); however its construction date is unknown.

Despite Congress appropriating more than \$200 million to the federal civil defense program in 1962, the money was for shelter surveys, improvement to existing public shelters, construction of new public shelters, as well as supplies to stock public shelters.¹⁷ Interest in fallout shelters continued into early 1962, both from a private and commercial perspective. Anticipating future construction of public or community shelters, well-known local architect Robert Eddy (Eddy & Paynter) attended a federally-sponsored seminar for shelter design and analysis at the University of Colorado in February 1962. However, this seminar was held as part of a federal shelter incentive program, which stressed community fallout shelters in schools, hospitals and public welfare establishments.¹⁸

While the Cuban Missile Crisis in October 1962 brought civil defense and fallout shelters to the front of the news again, it does not appear that it spurred any new construction of family fallout shelters in a significant way. Other recent scholarship, including Kenneth Rose's comprehensive 2001 study of fallout shelter construction and national policies related to sheltering the civilian population, suggests that the "the flashpoint for this remarkable phenomenon [of constructing home shelters] ... was a speech given by John F. Kennedy on July 25, 1961." Rose explained that the speech emphasized the lengths to which the nation would go to defend Berlin from Soviet pressures. During the crisis both sides declared that interference in Berlin would lead to war. He added, "the urgency to build a shelter also decreased after the Berlin and Cuban crises had passed and tensions had eased somewhat between the United States and Soviet Union. But the main reason Americans rejected shelter building had to do with the troubling moral aspects of shelters. These included questions of personal ethics and relationships with ones neighbors." Finally, Rose maintained that "after 1963 the public's involvement with the issues of fallout shelters and nuclear arms rapidly fell off."¹⁹

Newspaper advertisements and articles about family shelter construction dramatically decreased during the year and in December 1962, the City of Bakersfield reported only issuing one permit for fallout shelters during that entire year. By this time, it had become apparent that with the US and Soviet's growing nuclear arsenals and the probability of total destruction in the event of a nuclear attack, family shelters would be virtually useless. Over the subsequent years, the sense of impending nuclear threat subsided. In 1963, the Limited Test Ban Treaty was signed by the US, Soviet Union and Canada, which

¹³ Legal Notice, *Bakersfield Californian*, October 23, 1961, p. 32; "Shelters to be Taxed," *Bakersfield Californian*, September 12, 1961, p. 25; "Council Adopts Ordinance to Permit Shelter Construction in Front Yards," *Bakersfield Californian*, September 19, 1961, p. 19; City of Bakersfield, Ordinance No. 1383, September 18, 1961.

¹⁴ Caltrans, "Tract Housing in California, 1945-1973," 37-40.

¹⁵ "Fallout Shelter," *Bakersfield Californian*, August 29, 1961, p. 24; "Kern County Residents Begin 'Digging In'—Just In Case," *Bakersfield Californian*, September 16, 1961, pp. 19-20. The *Bakersfield Californian* incorrectly listed the Gullett property at 2523 Beech Street instead of 2535 Beech Street for which Dr. William Gallett Jr. resided as early as 1959.

¹⁶ Advertisements, *Bakersfield Californian*, October 13, 1962, p. 32, and August 11, 1961, p. 31.

¹⁷ Caltrans, "Tract Housing in California, 1945-1973," 37-40.

¹⁸ "Architect Eddy will Take Fallout Course," *Bakersfield Californian*, February 2, 1963, p. 21.

¹⁹ Kenneth D. Rose, *One Nation Underground: The Fallout Shelter in American Culture*. (New York: New York University Press, 2001) [ebook edition] pp. 11, 19.

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prohibited atmospheric and underwater testing of nuclear weapons. This, coupled with increased public attention on the Vietnam Conflict, pushed the US and Soviet's nuclear programs further into the background.²⁰

In Bakersfield, only two family fallout shelters (201 and 209 South Garnsey Avenue) are known to have been constructed in the summer of 1962 by local contractor James Womack (Jones and Womack) in a post-war housing tract. Womack's son, Keith Womack, notes that his father built his first shelter on his own property at 201 South Garnsey as a prototype and then immediately constructed the shelter at 209 South Garnsey. The two structures are different in size, construction material and methods, which supports the suggestion that the smaller shelter as a prototype. In fact, the shelter at 209 South Garnsey is similar in design to those shelters promoted by the federal civil defense office. James Womack likely constructed additional shelters during that period but none were built by him after 1962. It appears both were likely constructed without building permits.²¹

Evaluation

California Department of Transportation (Caltrans) has developed a context for evaluating postwar housing tracts that includes important historical events and trends, popular architectural styles, and significant architects and builders. The study also presents guidance for evaluating postwar houses for individual significance and residential tracts as potential historic districts using NRHP criteria.²² The current evaluation utilizes guidance presented in the Caltrans study as well as evaluation criteria and guidance prepared by the National Park Service entitled "How to Apply the National Register Criteria for Evaluation."²³

Under NRHP Criterion A (CRHR Criterion 1), a property may be eligible if it has important associations with events or trends that are significant to history. Research indicated that the individual residences documented on this form do not have important associations with local, state or national historical trends that would make them eligible under Criterion A (CRHR Criterion 1). A postwar housing tract, however, might be eligible under this criterion according to the Caltrans study if it is an "early or prototypical housing tract or new community, an unusually large example, or one that incorporates innovative design qualities or mass-production techniques."²⁴ Tract 1938 is an example of a small collection of residences developed over a period of four years. This tract does not appear to be significant for its association with important historic events. The tract is not an important representation of early housing development, an example of an unusually large tract, or one that incorporates innovative design qualities or mass-production techniques that might make it eligible as a historic district under this criterion. Instead, the development is a small example of a residential tract, many of which were developed during the widespread mid-century build-up of the city's housing stock. Research does not indicate that this tract is significant for incorporating any important or innovative production techniques into its design or construction. Individually, the houses in this tract are not significant under this criterion.²⁵

According to the Caltrans study, an example of important associations with postwar housing might include construction of Cold War fallout shelters. The Caltrans study states that public shelters built specifically for that use (as opposed to basements or interiors of large publicly- or privately-owned buildings that were used for fallout shelters) and a housing tract in which family or community fallout shelters were built and marketed as part of the tract, might meet NRHP Criterion A. Furthermore, Caltrans notes that "an intact home fallout shelter in which the residence is also extant would likely meet National Register Criterion A for its association with the Cold War, as a stark reminder of the period's anxieties." To date, only one family fallout shelter in the state, built in January 1962, has been evaluated for the NRHP. The evaluation, completed by Caltrans District 6, noted that within the theme of "Cold War anxiety," the shelter exhibited "some potential for eligibility under Criterion A." However, Caltrans determined that because that shelter never fully functioned and because

²⁰ "Chief Inspector Notes Building Decline in 1962," *Bakersfield Californian*, December 31, 1962, p. 20; Caltrans, "Tract Housing in California, 1945-1973," 40-41.

²¹ Keith Womack, personal communication with Toni Webb, JRP Historical Consulting, LLC, December 12, 2012; Kern County Assessor Records, Building Permit No. 113277, November 8, 1962.

²² California Department of Transportation, "Tract Housing in California, 1945-1973: A Context for National Register Evaluation," 2011.

²³ U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," Bulletin 15, 1990, revised 1997.

²⁴ Caltrans, "Tract Housing in California, 1945-1973," 125.

²⁵ Caltrans, "Tract Housing in California, 1945-1973," 123.

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its associated residence had been demolished, it lacked sufficient integrity to convey any potential significance under NRHP Criterion A. The State Historic Preservation Office concurred with Caltrans' finding of ineligibility. Although the Caltrans study notes that the actual number (or even reliable estimate) of shelters built (or extant) in the state is unknown, it does speculate that several thousand were probably built. Caltrans' broad statement suggests the potential eligibility of thousands of residences with family fallout shelters constructed during the Cold War. Excluding properties where their associated fallout shelters and/or residences lack integrity would reduce this number materially. The Caltrans study notes that there was a significant increase in the construction of shelters in 1957, after the launch of the Soviet's Sputnik satellite and further states that "the period of home shelter construction only lasted a short time, spiking in 1961 but declining precipitously by the end of the year, after the tensions of the Berlin Crisis had dissipated ... it does not appear that the Cuban Missile Crisis in the fall of 1962 led to a significant revival of shelter construction."²⁶

There are two properties documented on this form with associated fallout shelters. Both were built by James Womack in the summer of 1962, more than four years after their associated residences were constructed; therefore they were not included in the original design or marketing of the residential tract. Each property has been altered in subsequent years which have resulted in compromised integrity. Alterations to the property at 201 South Garnsey include the replacement of the residence's original aluminum sliding windows with vinyl, conversion of the original garage into living space, the construction of a secondary garage atop the fallout shelter, and removal of the fallout shelter steel trap door. Alterations to 209 South Garnsey consist of the replacement of the residence's stucco siding, replacement of original wood shake roof with tile roofing, and removal of the two subterranean water tanks associated with the fallout shelter. Therefore, none of the buildings or structures within the properties at 201 and 209 South Garnsey appear to meet the criteria for listing in either the NRHP or CRHR.

Under NRHP Criterion B (CRHR Criterion 2), the residences within this tract or the two fallout shelters do not appear to be significant for their associations with the lives of persons important to history. These residences were owned or rented by a range of individuals. It does not appear that anyone related to the use of these resources has made demonstrably important contributions to history at the local, state, or national level.²⁷ As the Caltrans postwar housing tract study points out, "it is unlikely that a district will meet National Register criterion B for association with an important individual." Associations with the developer, architect or builder are considered under Criterion 3 or C.²⁸ Several original owners worked as salesmen for the Elmer F. Karpe real estate and development company. In addition, James Womack, of Womack & Jones Building Contractors, lived at 201 South Garnsey Avenue. Womack and Jones built many of the houses along South Garnsey Avenue.²⁹ However, none appear to be significant under this criterion.

Under NRHP Criterion C (CRHR Criterion 3), neither the tract, nor the individual residences are significant for embodying important characteristics of a type, period or method of construction, as the work of master architects or builders, or for possessing high artistic value. The tract does not include important characteristics of a postwar subdivision design, such as evidence of careful planning, curvilinear street layout or distinctive landscaping features, like tree-lined streets and sidewalk plantings. As the Caltrans study notes, it is highly unlikely an individual house within a residential tract would possess the important characteristics of an architectural style that would make it significant because each individual house is similar or the same as many others in the same tract and elsewhere in the region and country.³⁰ None of the individual residences in this tract represent important examples of a general architectural style. The houses contain elements of the Ranch-style

²⁶ Caltrans, "Tract Housing in California, 1945-1973," 40-42.

²⁷ State of California, United States, *Great Register of Voters*, (Sacramento, California: California State Library; *Polk's Bakersfield California City Directory 1936-1945* (Los Angeles: R.L. Polk and Co. Publishers, 1936-1945); *Polk's Bakersfield California City Directory 1952* (Los Angeles: R.L. Polk and Co. Publishers, 1952).

²⁸ Caltrans, "Tract Housing in California, 1945-1973," 125.

²⁹ *Polk's Bakersfield California City Directory 1960* (Los Angeles: R.L. Polk and Co. Publishers, 1960); *Polk's Bakersfield California City Directory 1965* (Los Angeles: R.L. Polk and Co. Publishers, 1965); State of California, United States, *Great Register of Voters*, (Sacramento, California: California State Library) accessed online at www.ancestry.com on December 17, 2009; *Polk's Bakersfield California City Directory 1936-1945* (Los Angeles: R.L. Polk and Co. Publishers, 1936-1945), accessed online at www.ancestry.com on December 17, 2009; "Gwendolyn Dawn Womack [obituary]" *The Bakersfield Californian* May 5, 2005; "Building Activity Stays High," *Bakersfield Californian*, August 6, 1959, p. 28; Keith Womack, personal communication with Toni Webb, December 12, 2012.

³⁰ Caltrans, "Tract Housing in California, 1945-1973," 123.

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architecture, which became very popular during the mid-twentieth century in suburban communities throughout Bakersfield, the state, and the nation. While the houses in Tract 1938 possess different design elements, they are modest examples of the Ranch style.

Neither the tract nor any of the individual houses are significant as the work of a master architect or builder. The National Park Service guidelines specify that a “master is a figure of generally recognized greatness in a field, known craftsman of consummate skill, or an anonymous craftsman whose work is distinguishable from others by its characteristics style and quality.”³¹ The tract was subdivided in 1956, but development occurred over the span of four years. The only known contractor for this South Garnsey housing tract was Womack & Jones Building Contractors, which built at least the residences at 200, 201, 206, 209, 221, 275, and 295 South Garnsey Avenue. Research did not indicate that the company Womack and Jones, or the individuals, James Womack and his business partner Glen Jones, were master builders or architects. A house or tract might be eligible as an example of an unidentified master architect if it “rises above the level of workmanship of other properties encompassed by the historic context.”³² However, the design and construction of the houses appears similar in style and method to innumerable other postwar houses. Therefore, the tract is not significant as the work of an identified or unidentified master architect or builder.

The tract does not collectively, nor do the houses individually, possess high artistic value, which might be represented by “unique, high-style houses” that “exhibit an unusual degree of quality in their design, detailing, and craftsmanship.”³³ Instead, the houses are modest examples of Ranch-style architecture and exhibit common characteristics of design and craftsmanship. Finally, the Caltrans guidelines state a potential historic district might be eligible under this criterion as “a significant and distinguishable entity whose components may lack individual distinction.” The National Park Service guidelines further elaborate that the district must possess architectural or historical significance under one of the other three criteria or other parts of Criteria C or 3.³⁴ Even though Tract 1938 is a distinguishable entity comprising houses that lack individual distinction, it does not meet the threshold of architectural or historical significance.

Under Criterion C (CRHR Criterion 3) the fallout shelters do not embody distinctive characteristics of type, period or method of construction, nor are they the work of a master builder. Although fallout shelters could be constructed in extant basements, in California, where basements are uncommon, most fallout shelters were installed below ground in backyards. Generally shelters built were either prefabricated steel units, or prefabricated or site-built concrete (block or poured) structures. These shelters appear to be typical examples of privately built fallout shelters that used standard construction methods and materials. While the shelter at 201 South Garnsey was custom designed, it appears the shelter at 209 South Garnsey was likely based on a standard design that was promoted by the federal Civil Defense Office, and customized for size.³⁵

Under NRHP Criterion D (CRHR Criterion 4), the tract, the individual residences, and fallout shelters are not significant as sources (or likely sources) of important information regarding history. The residences do not appear to have any likelihood of yielding important information about historic construction materials or technologies.

In order to meet eligibility requirements for the NRHP or the CRHR, a property must have historical significance and retain sufficient integrity to convey its significance. While some of the individual houses retain overall integrity, none meet the significance criteria for eligibility in the NRHP or CRHR. Most of the houses have been altered to some extent, and these modifications have diminished several aspects of integrity of the structures. Alterations (shown in the table in P3a above) include replacement windows, replacement siding, additions, and converted garages. The two residences with fallout shelters have undergone varying levels of significant alteration (as noted above); and the fallout shelters have lost a degree of integrity to their original period of construction because of removal of equipment required for that function.

³¹ U.S. Department of the Interior, National Park Service, “How to Apply the National Register Criteria for Evaluation,” 20.

³² U.S. Department of the Interior, National Park Service, “How to Apply the National Register Criteria for Evaluation,” 20.

³³ Caltrans, “Tract Housing in California, 1945-1973,” 125-126.

³⁴ Caltrans, “Tract Housing in California, 1945-1973,” 126; U.S. Department of the Interior, National Park Service, “How to Apply the National Register Criteria for Evaluation,” 5, 20.

³⁵ Office of Civil Defense and Mobilization, *The Family Fallout Shelter*, MP-15, June 1959.

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For a historic district to retain integrity, a general rule is that at least two-thirds of the components of the tract must retain sufficient integrity.³⁶ Components of the tract include not only individual residences, but also design and landscape features, such as street layout, sidewalk, planting strip and trees. Tract 1938 lacks uniformity in some of the design features. Tract 1938 has a rectilinear layout with concrete gutters, squared curbs and sidewalks. The sidewalks and curbs are separated on most properties by a landscaping strip filled with grass. The front yard of each house has lawn. Some properties have mature trees while others have young or no trees in the front yard. The tract, individual residences, and fallout shelters have been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

³⁶ Caltrans, "Tract Housing in California, 1945-1973," 134.
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Photographs (continued):



Photograph 2. 201 South Garnsey Avenue, facing west.



Photograph 3. 205 South Garnsey Avenue, facing northwest.

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Photograph 4. 206 South Garnsey Avenue, facing east.



Photograph 5. 209 South Garnsey Avenue, facing west.

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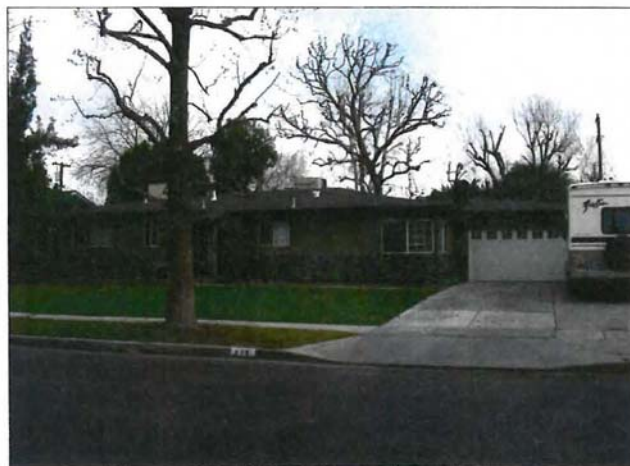
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Photograph 6. 212 South Garnsey Avenue, facing east.



Photograph 7. 218 South Garnsey Avenue, facing east.

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Photographs (continued):



Photograph 8. 221 South Garnsey Avenue, facing southwest.



Photograph 9. 255 South Garnsey Avenue, facing northwest.

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Photographs (continued):



Photograph 10. 275 South Garnsey Avenue, facing northwest.



Photograph 11. 295 South Garnsey Avenue, facing west.

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Photographs (continued):



Photograph 12. Interior view of fallout shelter at 201 South Garnsey Avenue, facing north.



Photograph 13. Fallout shelter stairs at 201 South Garnsey Avenue showing intake pipe (near light), facing south.

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Photographs (continued):



Photograph 14. View of fallout shelter entrance at 201 South Garnsey Avenue.



Photograph 15. View of fallout shelter entrance at 209 South Garnsey Avenue.

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Photographs (continued):



Photograph 16. View of fallout shelter entrance at 209 South Garnsey Avenue.



Photograph 17. View of fallout shelter stairway at 209 South Garnsey Avenue.

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Photographs (continued):



Photograph 18. Interior view of fallout shelter at 209 South Garnsey Avenue.



Photograph 19. Centrifugal blower with handcrank at 209 South Garnsey Avenue.

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*Required Information

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CONTINUATION SHEET

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HRI # _____

Trinomial _____

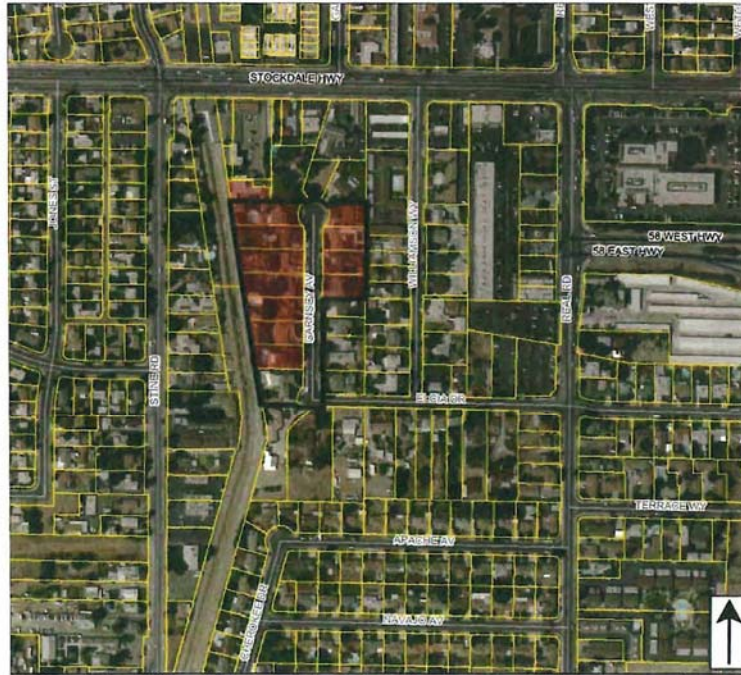
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*Resource Name or # (Assigned by recorder) Map Reference No. 09-11

*Recorded by P. Allen, J. Freeman, T. Webb *Date March 2009; December 2012

☒ Continuation ☐ Update

Sketch Map:



NOTE: Boundaries of Tract 1938 outlined in BLACK; Parcels shaded RED are documented on this form.

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Other Listings _____ Review Code _____	Reviewer _____	Date _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-12P1. Other Identifier: 195 South Garnsey Avenue*P2. Location: ☐ Not for Publication ☒ Unrestricted
(P2b and P2c or P2d. Attach a Location Map as necessary.)*a. County Kern*b. USGS 7.5' Quad Gosford, CA Date 1973 T _____; R _____; 1/4 of Sec _____; B.M. _____c. Address 195 South Garnsey Ave, City Bakersfield, CA Zip 93309

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor Parcel Number: 149-221-21

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This 2,432-square foot residence is situated on a 0.5-acre parcel with a detached garage, basement and a pool. The house and detached garage are setback from the street, at the end of a concrete driveway. The house features a low-pitch side gable roof with exposed rafters and has both board-and-batten and horizontal wood siding. The main entrance is located on the west side of the house, under a shed roof supported by square wood posts and sheltering a full-width porch (Photograph 1). The entrance is off-center and features a glazed wood panel door. Fenestration consists of two 4/4 double-hung wood windows south of the main entrance and a fixed picture window grouped with two wood casement windows north of the entrance. A secondary entrance is located between the double-hung windows, and features a wood-frame glass door. The north side of the house features an exterior brick chimney and a small shed roof extension. This wall is connected to a covered patio (originally built as a carport) that shelters access to the basement. The east side of the house has a shed-roof enclosed projection with a wood-frame door. Windows on this side include 1/1 double-hung wood windows (Photograph 2). (See Continuation Sheet)

*P3b. Resource Attributes: (List attributes and codes) HP2 – Single family property*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) Photograph 1. Facing north.*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
ca. 1930 / 1950, Kern County Assessor*P7. Owner and Address:
Quinn M. Miller
195 S. Garnsey Ave.
Bakersfield, CA 93309*P8. Recorded by: (Name, affiliation, address)
Polly Allen and Joseph Freeman
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618*P9. Date Recorded: March 2009*P10. Survey Type: (Describe) Intensive*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"*Attachments: ☐ None ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

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BUILDING, STRUCTURE, AND OBJECT RECORD

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*NRHP Status Code 6Z*Resource Name or # (Assigned by recorder) Map Reference No. 09-12B1. Historic Name: 3839 Stockdale Highway

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential*B5. Architectural Style: Ranch*B6. Construction History: Basement built ca. 1930; house built in 1950; pool installed in 1969; covered walkway built between 1969 and 1975; enclosure sheltering exterior basement stairs built after 1994.*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____*B8. Related Features: noneB9. Architect: unknown b. Builder: unknown*B10. Significance: Theme n/a Area n/aPeriod of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be a historical resource for the purposes of CEQA. This residence and garage were constructed in 1950 on top of a basement built circa 1930 for use in the production and storage of illegal alcohol during and after Prohibition. The property was formerly owned by Italian immigrant Gaetano "George" Egidio Barsotti and his wife Guiseppina (nee Lorenzi). Barsotti came to Bakersfield in the early 1920s, marrying his wife in late 1923. Research provided little information about Barsotti during his years in Bakersfield. It appears that he purchased land along West Brundage (present-day Stockdale Highway) likely in the mid to late 1920s. At that time the property included a house fronting present-day Stockdale Highway as well as some outbuildings, one of which was purported to be a chicken house. Newspaper accounts reveal that George Barsotti had various arrests for producing, transporting, and storing of illegal wine and distilled spirits during the 1920s; however those accounts do not include any mention of the property documented on this form. In 1938, five years after the end of Prohibition, Barsotti was arrested in his home on Brundage Lane during a raid by the federal government. He was charged with possession of alcohol for which no federal tax had been paid. During the raid federal agents found the underground plant, complete with hydraulic host elevator to lift the finished goods to the surface for transportation. It appears that Barsotti sold some of his land along West Brundage to pay off his tax debt. He eventually sold his property in 1946, moving to a home in the Westchester neighborhood of Bakersfield.

The period immediately following World War II was a time of great population growth for Bakersfield. In the period following World War II, Bakersfield's population and economy grew rapidly, a result of (See Continuation Sheet)

B11. Additional Resource Attributes: _____

*B12. References: Interview with Quinn Miller, November 16, 2011; Kern County Assessor, Residential Property Record for APN 149-221-21; "Takes Blame of Liquor Found in Home of Brother," *Bakersfield Californian*, 5 January 1921, pg. 6 (col. 6); "George Pays Fine," *Bakersfield Californian*, 7 January 1921, pg. 8 (col. 3); "Five Arrested in Midnight Raids," *Bakersfield Californian*, 15 November 1923, pg. n/a (col. 3); "George Barsotti Must Face Trial," *Bakersfield Californian*, 21 April 1939, pg. 15 (col. 4); "Two Petitions Denied for Naturalization: 46 Granted," *Bakersfield Californian*, 17 November 1943, pg. 9 (col. 2); *Bakersfield Californian*, July 22, 1946 p6; see footnotes.

B13. Remarks:

*B14. Evaluator: Joseph Freeman*Date of Evaluation: August 2011

(This space reserved for official comments.)



*Required Information

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-12

*Recorded by P. Allen & J. Freeman *Date March 2009☒ Continuation ☐ Update**P3a. Description (continued):**

The south side of the house features a gateway at the south end of the front porch that includes a gable roof supported by square posts, and an iron gate (Photograph 3). Adjacent the gateway is a shed-roof projection with two 1/1 double-hung wood windows. This gateway is connected on the west side to a covered walkway that leads to the detached garage (Photograph 4). The garage includes board-and-batten wood siding, and has replacement vinyl windows on the south wall. The garage has been converted to an office. A swimming pool is located on the western periphery of the parcel.

The basement (Photographs 6-13) is approximately 2,000 square feet in size and is sited below the residence and both east and north patios. It is accessed from the interior of the house, as well as from wood stairs within an enclosure sheltered under the north patio. The enclosure (Photograph 5) features windows and a modern door. The basement, constructed ca. 1930, is of unreinforced board-formed concrete construction and consists of five rooms that have been converted to living space. The two larger rooms are in the southern portion of the basement while the three smaller rooms are in the northern portion. Rooms are generally connected through cutouts in the concrete walls and have exposed concrete walls and ceilings. The floors are also primarily exposed concrete, but do include patterned brick. The largest room has been finished and has a spiral staircase, drywall and wood paneling, a fireplace, and linoleum floor (Photograph 9).

B10. Significance (continued):

returning veterans and general postwar economic resurgence. However, with little residential construction during the war years, the region was quickly hit by a housing shortage. Low interest rates, fixed mortgages for longer terms, and reduced down payments for veterans contributed to the rise in demand for housing, and resulted in increased development. In the first decade after the war, over twenty square miles of new housing was developed in the greater Bakersfield area and between 1950 and 1955 alone approximately 12,000 new homes were built. The city's boundaries began to expand as outlying agricultural land was converted to residential tracts. From 1950 to 1975, the city tripled in size, as Bakersfield continued to extend its borders to meet the ever-growing housing demand.¹

Omar Allen Cavins, a retired geologist, and his wife Grace purchased the Barsotti home in 1946, and likely constructed the extant residence and garage during this postwar period. The new house was originally accessed from Stockdale Highway to the north before South Garnsey Avenue was built. The property originally contained the residence and detached garage, and included one or more of the parcels and buildings to the north. In the early 1960s, this residence appears with its South Garnsey Avenue address. In 1961 Judge Earle J. Gibbons and his wife Joan purchased the property from the Cavins. The Gibbons remained at the address until its sale in 1978.²

Under NRHP Criterion A or CRHR Criterion 1, this residence does not appear to be significant for its association with important historic events. This basement was constructed around 1930 and used, for a period, to produce and store wine and liquor. The earliest historical documentation revealing the existence of this basement found during research for this project was a newspaper article in 1938 which reported on the arrest of George Barsotti for tax evasion. Photographs of the basement were included with the article. Barsotti had a lengthy history in bootlegging liquor during Prohibition, going back to the early 1920s. During this period, many people engaged in the illegal activities surrounding liquor production and distribution, and Barsotti does not appear to have gained significance for his participation. Likewise, while the basement

¹ Chris Brewer, *Historic Kern County: An Illustrated History of Bakersfield and Kern County* (San Antonio, TX: Historical Publishing Network, 2001), 77; "Kern Homes Crisis Aired," *Los Angeles Times*, 7 December 1945; "Three Hundred Veterans Join Rush for 90 Homes," *Los Angeles Times*, 22 May 1946; "Minter Field Units to House 400 Families," *Los Angeles Times*, 2 February 1947; "Housing Pact Canceled by Bakersfield," *Los Angeles Times*, 7 March 1952; Chris Brewer, *Historic Kern County: An Illustrated History of Bakersfield and Kern County* (San Antonio, TX: Historical Publishing Network, 2001) 77-80; Joel Kotkin, "Things Are Booming in Bakersfield," *The Washington Post*, 27 Dec. 1975; "City Barely Touched," *Bakersfield Californian*, 2 November 1957.

² "George Barsotti Must Face Trial," *Bakersfield Californian*, 21 April 1939, pg. 15 (col. 4); Kern County Recorder, 24 January 1946, Deed, Book 1296, Page 292; State of California, United States, *Great Register of Voters* (Sacramento, California: California State Library, 1950, 1952, 1954, 1956, 1958, 1960); Kern County Recorder, 26 October 1961, Deed, Book 3428, Page 247; Kern County Recorder, 19 June 1978, Deed, Book 5118, Page 2036; Kern County Assessor, Residential Property Record for APN 149-221-21.

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-12*Recorded by P. Allen & J. Freeman *Date March 2009☒ Continuation ☐ Update

might have been used throughout Prohibition, it does not appear to have gained significance for association with bootlegging. The space was converted to living space by the Gibbons family, and all of the tools and machinery that would have been used in this subterranean factory have been removed, including a hydraulic lift that moved supplies and finished product in and out of the space, and the bulkhead door that gave access to the exterior staircase. Moreover, it is unlikely that the structure provides historical information that might further illuminate potential significance. In addition, the original building under which the basement was constructed no longer exists, having been replaced by a more modern residence.

Research revealed no direct relationship between this property and other important historic events within any context. Specifically, the property does not have significant associations with residential development in Bakersfield during period following World War II. It does not appear that any of the known owners or tenants of this residence made demonstrably important contributions to history at the local, state or national level, and thus the property does not appear to be significant under NRHP Criterion B or CRHR Criterion 2. Under NRHP Criterion C or CRHR Criterion 3, this building does not appear to possess distinctive characteristics of a type, period or method of construction. The house features standard elements of Ranch-style architecture, including a low-pitch gable roof, wide eaves with exposed rafters, and a sprawling footprint. The house was built in 1950, when the Ranch style was immensely popular for residential designs. While it features the distinctive characteristics of the style, it is an unimportant example of the Ranch-style architecture. It also does not appear to be the work of a master architect, nor does it possess high artistic values.

Built environments are rarely significant under NRHP Criterion D or CRHR Criterion 4 and this property does not appear likely to yield important historical information. A structure such as the basement under the house at 195 South Garnsey Avenue might contain sources of information, such as written documents, that could illuminate significant historical events or trends, or provide crucial information about important individuals. A structure could also contain information in its design characteristics that could reveal important information about significant architectural trends or styles. This criterion has two requirements: "The property must have, or have had, information to contribute to our understanding of human history or prehistory, and, the information must be considered important." A property is eligible, therefore, if it "has been used as a source of data and contains more, as yet unretrieved data." It could also be eligible if, through testing or research, it is likely to contain data.

The structure might also contain information in the building design, techniques or method of construction. Information regarding the physical characteristics of the structure has been collected. The Kern County Assessor's office documented the basement in 1962, noting its two-foot thick, poured concrete construction. It was determined to have commercial-grade reinforced concrete exterior and partition walls.³ An addition to the basement was constructed in 1969, and recorded in assessment records as a family room. The basement was also documented during the current recordation, and the conditions noted in the assessor records were determined accurate. The structure has therefore revealed information about the design of the basement. However, this information has not proved important. The materials, design and method of construction are standard for the period, and does not further inform our understanding of these materials. The design of the basement does not provide important information regarding bootlegging during Prohibition. While it was used to make or store liquor, research did not definitively show that this resource was constructed for bootlegging during Prohibition. Indeed, the only documents that connect the basement to alcohol production came after Prohibition ended. Moreover, even if the basement was concluded to have been built or used for bootlegging during Prohibition, it does not have important information that contributes to our understanding of history. Instead, it is of a standard basement design, with very few elements connecting it to its illicit usage. Those features, including the thick, concrete walls and partitioned rooms, do not fill in gaps in the history of bootlegging. Additionally the feature that connected the basement to illegal activities, the hydraulic hoist elevator system, has been removed and could only be linked to activity after Prohibition.⁴

The removal of the chicken coop that concealed the circa 1930s basement and the construction of the house in 1950 affected the structure's integrity of association with alcohol production in rural Bakersfield. The partial conversion of the basement to living space, the removal of the hydraulic hoist elevator system, and latter additions have also compromised the

³ No steel reinforcement was noted in any of the basement room openings during field recordation of this property by JRP.

⁴ Kern County Assessor Property Cards for APN 149-221-21.

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basement's integrity of design, workmanship, materials, and feeling, while maintaining integrity of location. The house itself has undergone few alterations, and appears to retain integrity of location, design, workmanship, materials, and association. The surrounding area has changed since the original construction. Residences were constructed south of the house, in an area that was open land in 1950. To the north, Stockdale Highway has grown into a major thoroughfare, lined with commercial properties. The three parcels adjacent these parcels to the north all contain commercial buildings. These changes have diminished the integrity of setting and feeling. This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

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Photographs (continued):



Photograph 2: East side of residence, facing north.



Photograph 3: South side of residence, facing north.

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Photographs (continued):



Photograph 4: Detached garage, facing northwest.



Photograph 5: Basement entrance, facing northwest.

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Photographs (continued):



Photograph 6: Wood staircase in basement.



Photograph 7: Basement narrow rooms.

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Photographs (continued):



Photograph 8: Basement narrow rooms.



Photograph 9: Basement finished room.

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Photographs (continued):



Photograph 10: Basement unfinished room.



Photograph 11: Basement unfinished room.

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Photographs (continued):



Photograph 12: Typical opening giving access to basement rooms.



Photograph 13: Extant concrete-constructed distillery features.

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*Resource Name or # (Assigned by recorder) Map Reference No. 08-31P1. Other Identifier: 320 South Garnsey Avenue*P2. Location: ☐ Not for Publication ☒ Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)*a. County Kern*b. USGS 7.5' Quad Gosford, CA Date 1973 T ____; R ____; ____ of Sec ____; ____ B.M.c. Address 320 South Garnsey Avenue City Bakersfield, CA Zip 93309

d. UTM: (give more than one for large and/or linear resources) Zone ____; ____ mE/ ____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor Parcel Number: 149-232-14

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This 0.35-acre parcel is located in an unincorporated county island roughly bounded by Highway 58 and Stockdale Highway to the north, Ming Avenue to the south, H Street to the east, and Montclair Street to the west. The 2,288-square-foot house, built in 1943, is oriented perpendicular to Garnsey Avenue and its primary façade faces south. It is clad in stucco and has a side-gabled roof with boxed eaves. A shed roof extension supported by metal poles shelters a full-width raised concrete front porch with wrought iron rails. The off-center front entry door is flanked by a pair of two-part vinyl windows on its right. A 1/1 vinyl sash window is located near each corner. The street-facing gabled end has a pair of vinyl sliding windows with canopies, and a louvered vent beneath its apex. There is a gabled extension attached to the east of the house, a 1979 addition, which can roughly be seen from the right-of-way. A two-car detached garage with a gable roof is located north of the house at an angle facing northwest. It was built in 1956.

*P3b. Resource Attributes: (List attributes and codes) HP2 – Single family property*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) Photograph 1. South and west facades, facing east.*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
1943, Kern County Assessor Records*P7. Owner and Address:
Scott W. and Renae A. Wade
320 S. Garnsey Ave.
Bakersfield, CA 93309*P8. Recorded by: (Name, affiliation, address)
Greg Rainka and Joseph Freeman
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618*P9. Date Recorded: March 2009*P10. Survey Type: (Describe) Intensive*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"*Attachments: ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

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*NRHP Status Code 6Z*Resource Name or # (Assigned by recorder) Map Reference No. 08-31

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential*B5. Architectural Style: Ranch*B6. Construction History: 1943: detached garage addition (1956): rear addition (1979) replacement windows (date unknown).*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: unknown*B10. Significance: Theme n/a Area n/a
Period of Significance n/a Property Type n/a Applicable Criteria n/a

This building does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be a historical resource for the purposes of CEQA. Bakersfield experienced tremendous population growth after World War II that generated a wave of new development. There was a flood of veterans to California immediately following the war, and with it came a need for more housing. Throughout the decade, Kern County's population remained greater than the number of available houses, and it was many years before supply caught demand. The city's boundaries began to expand as outlying agricultural land was converted to residential tracts, and by the end of the 1950s, the housing gap had successfully been bridged. Twenty square miles of development took place in Greater Bakersfield from 1945 to 1955, which included approximately 12,000 new homes built between 1950 and 1955. In particular, the land straddling Stockdale Highway southwest of downtown was the site of new development.

The unprecedented postwar growth period strained Bakersfield's road and highway system. By the 1950s, Bakersfield began planning street and highway improvements to attack congestion problems. The city ultimately wanted traffic to move around, not through, the downtown area. This led to the construction of the Highway 99 bypass in 1963 that routed traffic down a multi-lane freeway along the west edge of the city rather than to and through the city center on Union Avenue. A decade later, the state finished construction of Highway 58 (now the primary east-west route through Bakersfield) directly south of, and parallel to, Brundage Lane. Census figures show a 50% increase in Bakersfield's population from 1970 to 1980. Owing to the new freeways, the southwest of the city was the primary target of growth and new construction efforts. By 1980, 48,000 people lived in the area directly west of the "new" 99 and accessed primarily via Stockdale Highway, a 500% increase from the decade prior, and over one-third of the city's building permits were for residential property in this section of town. (See Continuation Sheet)

B11. Additional Resource Attributes: _____

*B12. References: Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968; "Kern Homes Crisis Aired," *Los Angeles Times*, 7 December 1945; "Three Hundred Veterans Join Rush for 90 Homes," *Los Angeles Times*, 22 May 1946; "Shutdown on Veterans' Housing Project Averted," *Los Angeles Times*, 28 December 1946; "Minter Field Units to House 400 Families," *Los Angeles Times*, 2 February 1947; "Housing Pact Canceled by Bakersfield," *Los Angeles Times*, 7 March 1952; "City Barely Touched," *Bakersfield Californian*, 2 November 1957; "State Okays Oak Street Freeway," *Bakersfield Californian*, 26 November 1957; URS, "Bakersfield System Study, Summary Report," prepared for Council of Governments, City of Bakersfield, County of Kern, Caltrans, December 2002, 12-13; Bob Griffith, "Boom in southwest molds city's shape," *Bakersfield Californian*, 6 Oct. 1980; Chris Brewer, *Historic Kern County*, 88. See footnotes.

B13. Remarks:

*B14. Evaluator: Greg Rainka and Toni Webb*Date of Evaluation: November 2009

(This space reserved for official comments.)



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*Recorded by G. Rainka & J. Freeman *Date March 2009*Resource Name or # (Assigned by recorder) Map Reference No. 08-31☒ Continuation ☐ Update**B10. Significance (continued):**

The residential area bounded by Stockdale Highway to the north, Apache Avenue to the south, Real Road to the east, and the Stine Canal to the west mostly developed at the end of the 1950s. Prior to this time, this land was wholly agricultural with only a handful of residences. Elcia Drive (via Real Road) was the only paved way in, and this residence was constructed at its west end in 1943 on property owned by Edward and Monica Armstrong. In 1956, the Armstrongs subdivided their land immediately to the west, between this house and the Stine Canal, as Tract 1938. This called for the construction of South Garnsey Road, though the residential tract included only the west side of the street. It fully developed by the end of that decade, and houses were concurrently constructed on the east side of South Garnsey Road, north of this residence to Stockdale Highway. Williamson Way, a former dirt access road off of Elcia Drive, filled with new houses as well. This residence was given its current address once it no longer fronted Elcia Drive after the construction of a house to its south in 1961.¹

Under NRHP Criterion A or CRHR Criterion 1, this building is not significant for its association with important historic events. Research did not reveal a direct relationship between this property and important historic events within any context, specifically residential development in Bakersfield near the end of World War II. This house was constructed at the outset of a widespread mid-century build-up of the city's housing stock, specifically on outlying agricultural land converted to buildable residential lots. Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for its association with the lives of persons important to history. This property, as well as much of the surrounding land, was owned by Edward Armstrong of Warde D. Watson Realty. He retained ownership of the house until at least 1965. It does not appear that Mr. Armstrong made demonstrably important contributions to our history at the local, state, or national level.² Under NRHP Criterion C or CRHR Criterion 3, this building is not significant for possessing distinctive characteristics of a type, period, or method of construction, nor does it appear to be the work of a master. This building is a modest and typical example of a commonly-produced architectural type that became widely popular in suburban communities nationwide during the late 1940s and 1950s. In addition to failing to meet this criterion, additions and alterations have altogether lent a lack of integrity to the property as a whole in terms of design, materials, workmanship, and feeling. Furthermore, this property does not appear to be a significant or likely source of important information regarding history (NRHP Criterion D and CRHR Criterion 4). This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

¹ Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968, 1975.

² Polk's Bakersfield California City Directory 1960 (Los Angeles: R.L. Polk and Co. Publishers, 1960); Polk's Bakersfield California City Directory 1965 (Los Angeles: R.L. Polk and Co. Publishers, 1965); Ancestry.com, U.S. City Directories [database on-line] (Provo, UT, USA: Ancestry.com Operations Inc., 2008), original data: Polk's Bakersfield (California) City Directory (Los Angeles: R.L. Polk & Co., 1936-1945); Ancestry.com, California Voter Registrations, 1900-1968 [database on-line] (Provo, UT, USA: The Generations Network, Inc., 2008), original data: State of California, United States, Great Register of Voters (Sacramento, California: California State Library).

DPR 523L (1/95)

*Required Information

GP-35

State of California – The Resources Agency DEPARTMENT OF PARKS AND RECREATION PRIMARY RECORD		Primary # _____ HRI # _____ Trinomial _____ NRHP Status Code <u>6Z</u>
Other Listings _____ Review Code _____	Reviewer _____	Date _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 08-32P1. Other Identifier: 306 South Garnsey Avenue*P2. Location: ☐ Not for Publication ☒ Unrestricted
(P2b and P2c or P2d. Attach a Location Map as necessary.)*a. County Kern*b. USGS 7.5' Quad Gosford, CA Date 1973 T _____; R _____; ¼ of Sec _____; B.M. _____c. Address 306 South Garnsey Avenue City Bakersfield, CA Zip 93309

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor Parcel Number: 149-232-08

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This 0.20-acre parcel is located in an unincorporated county island roughly bounded by Highway 58 and Stockdale Highway to the north, Ming Avenue to the south, H Street to the east, and Montclair Street to the west. The 1,746-square-foot T-shaped Ranch house has an overhanging cross gable composite shingle roof with exposed rafter tails. Each gable is swept-back (the peak projects farther than its lower edges), and the south gable has a single cornice return. The front entry door is located in the ell near the building's interior corner, recessed beneath the roof overhang and opposite the two-car garage door that faces south rather than toward the street. The street-facing gable end of the projecting garage wing has a centered shed-roofed square oriel bay with a large sliding window. Fenestration also includes a metal sliding window centered in the ell. The house is clad in stucco above a two-foot brick base and raised flower bed. There is a hint of decorative half-timbering. The rear gabled extension cannot be seen from the right-of-way.

*P3b. Resource Attributes: (List attributes and codes) HP2 – Single family property*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) Photograph 1. Primary facade, facing northeast.*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
1959. Kern County Assessor Records*P7. Owner and Address:
Kent M. Pearson and Diana G. Pasqua-Pearson
306 S. Garnsey Ave.
Bakersfield, CA 93309*P8. Recorded by: (Name, affiliation, address)
Greg Rainka and Joseph Freeman
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618*P9. Date Recorded: March 2009*P10. Survey Type: (Describe) Intensive*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"*Attachments: ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

DPR 523A (1/95)

*Required Information

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State of California – The Resources Agency
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Primary # _____
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*NRHP Status Code 6Z*Resource Name or # (Assigned by recorder) Map Reference No. 08-32

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential*B5. Architectural Style: Ranch*B6. Construction History: Built 1959; addition of square oriel bay (date unknown).*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: unknown

*B10. Significance: Theme n/a Area n/a
Period of Significance n/a Property Type n/a Applicable Criteria n/a

This building does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be a historical resource for the purposes of CEQA. Bakersfield experienced tremendous population growth after World War II that generated a wave of new development. There was a flood of veterans to California immediately following the war, and with it came a need for more housing. Throughout the decade, Kern County's population remained greater than the number of available houses, and it was many years before supply caught demand. The city's boundaries began to expand as outlying agricultural land was converted to residential tracts, and by the end of the 1950s, the housing gap had successfully been bridged. Twenty square miles of development took place in Greater Bakersfield from 1945 to 1955, which included approximately 12,000 new homes built between 1950 and 1955. In particular, the land straddling Stockdale Highway southwest of downtown was the site of new development.

The unprecedented postwar growth period strained Bakersfield's road and highway system. By the 1950s, Bakersfield began planning street and highway improvements to attack congestion problems. The city ultimately wanted traffic to move around, not through, the downtown area. This led to the construction of the Highway 99 bypass in 1963 that routed traffic down a multi-lane freeway along the west edge of the city rather than to and through the city center on Union Avenue. A decade later, the state finished construction of Highway 58 (now the primary east-west route through Bakersfield) directly south of, and parallel to, Brundage Lane. Census figures show a 50% increase in Bakersfield's population from 1970 to 1980. Owing to the new freeways, the southwest of the city was the primary target of growth and new construction efforts. By 1980, 48,000 people lived in the area directly west of the "new" 99 and accessed primarily via Stockdale Highway, a 500% increase from the decade prior, and over one-third of the city's building permits were for residential property in this section of town. (See Continuation Sheet)

B11. Additional Resource Attributes: _____

*B12. References: Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968; "Kern Homes Crisis Aired," *Los Angeles Times*, 7 December 1945; "Three Hundred Veterans Join Rush for 90 Homes," *Los Angeles Times*, 22 May 1946; "Shutdown on Veterans' Housing Project Averted," *Los Angeles Times*, 28 December 1946; "Minter Field Units to House 400 Families," *Los Angeles Times*, 2 February 1947; "Housing Pact Canceled by Bakersfield," *Los Angeles Times*, 7 March 1952; "City Barely Touched," *Bakersfield Californian*, 2 November 1957; "State Okays Oak Street Freeway," *Bakersfield Californian*, 26 November 1957; URS, "Bakersfield System Study, Summary Report," prepared for Council of Governments, City of Bakersfield, Count of Kern, Caltrans, December 2002, 12-13; Bob Griffith, "Boom in southwest molds city's shape," *Bakersfield Californian*, 6 Oct. 1980; Chris Brewer, *Historic Kern County*, 88. See footnotes.

B13. Remarks:

*B14. Evaluator: Toni Webb

*Date of Evaluation: December 2011
(This space reserved for official comments.)



DPR 523B (1/95)

*Required Information

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CONTINUATION SHEET

Primary # _____
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Trinomial _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 08-32*Recorded by G. Rainka & J. Freeman *Date March 2009☒ Continuation ☐ Update**B10. Significance (continued):**

The residential area bounded by Stockdale Highway to the north, Apache Avenue to the south, Real Road to the east, and the Stine Canal to the west mostly developed at the end of the 1950s. Prior to this time, this land was wholly agricultural with only a handful of residences, and Elcia Drive (via Real Road) was the only paved way in. In 1956, Edward and Monica Armstrong subdivided their land between the Stine Canal and the west terminus of Elcia Drive as Tract 1938. This called for the construction of South Garnsey Road, though the residential tract included only the west side of the street. It fully developed by the end of that decade, and builders erected houses concurrently on the east side of South Garnsey Road, which included this residence.¹

This residence appears unaltered, except for the addition of a square oriel bay, since its construction; therefore it retains basic integrity of location, setting, design, workmanship, materials, feeling, and association. Under NRHP Criterion A or CRHR Criterion 1, this building is not significant for its association with important historic events. Research did not reveal a direct relationship between this property and important historic events within any context, including for this house, residential development in post-war Bakersfield. The house is one of thousands constructed during a widespread mid-century build-up of the city's housing stock, specifically on outlying agricultural land converted to buildable residential lots.

Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for its association with the lives of persons important to history. The earliest known owner was John Hardy, a native of England who arrived in the US in 1957 and a golf professional since 1958, and owned the property at least as early as 1965. Hardy became a PGA Master in 1994, and has since become CEO of Zero-In Golf, a club manufacturer. Hardy's importance, however, would be represented by golf courses where he worked and taught (such as Big Canyon Country Club at Newport Beach in the 1970s or Alisal Dude Ranch, Solvang), or at his company facilities, rather than a residence from relatively early in his career. He is currently listed as a PGA Master Professional in instruction in Murrieta, California. Hardy no longer owns the residence. Research did not indicate that any other individuals related to the development and use of this resource, have made demonstrably important contributions to history at the local, state, or national level.²

Under NRHP Criterion C or CRHR Criterion 3, this building is not significant for possessing distinctive characteristics of a type, period, or method of construction, nor does it appear to be the work of a master. Though this building retains architectural integrity to its date of construction, it is an example of a commonly produced type that became widely popular in suburban communities nationwide during the late 1940s and 1950s. The traditional Ranch house is one-story, rectilinear in plan, and features a broad, low-pitched roof with wide eaves and a combination of exterior cladding materials. The primary façade is generally asymmetrical and may include an integrated garage that projects to the front or side of the house. Details tend to reference architectural precedents, most commonly Colonial Revival. This building generally reflects all of these defining characteristics. Furthermore, this property does not appear to be a significant or likely source of important information regarding history (NRHP Criterion D and CRHR Criterion 4). This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

¹ Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968, 1975.

² *Polk's Bakersfield California City Directory 1960* (Los Angeles: R.L. Polk and Co. Publishers, 1960); *Polk's Bakersfield California City Directory 1965* (Los Angeles: R.L. Polk and Co. Publishers, 1965); Ancestry.com, *U.S. City Directories* [database on-line] (Provo, UT, USA: Ancestry.com Operations Inc., 2008), original data: *Polk's Bakersfield (California) City Directory* (Los Angeles: R.L. Polk & Co., 1936-1945); Ancestry.com, *California Voter Registrations, 1900-1968* [database on-line] (Provo, UT, USA: The Generations Network, Inc., 2008), original data: State of California, United States, *Great Register of Voters* (Sacramento, California: California State Library); <http://www.golfcalifornia.com/holland11.htm>; <http://www.pgamedia.com/pgamedia.com/pgaofamerica.cfm?psaid=mp>; <http://zeroingolf.com/about.html>, accessed December 2011.

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*Required Information

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PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 08-33

*P1. Other Identifier: 300 South Garnsey Avenue

*P2. Location: ☐ Not for Publication ☒ Unrestricted
(P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County Kern*b. USGS 7.5' Quad Gosford, CA Date 1973 T _____; R _____; 1/4 of Sec _____; B.M.c. Address 300 South Garnsey Avenue City Bakersfield, CA Zip 93309

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor Parcel Number: 149-232-01

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This 0.19-acre parcel is located in an unincorporated county island roughly bounded by Highway 58 and Stockdale Highway to the north, Ming Avenue to the south, H Street to the east, and Montclair Street to the west. The 1,526-square-foot T-shaped Ranch house has an overhanging cross gable composite shingle roof with exposed rafter tails. Each gable is wood-sided and has a beak-like projecting ridge with exposed ridge beam. The front entry door is located in the ell near the building's interior corner, opposite the two-car-wide garage door that faces south rather than toward the street. The street-facing gable end of the projecting garage wing has a centered wide metal sliding window with fixed louvered shutters. Fenestration also includes an aluminum sliding window with louvered shutters centered in the ell and a larger metal sliding window at its corner. The house is clad in stucco above a two-foot tall brick base. The rear gabled extension cannot be seen from the right-of-way.

*P3b. Resource Attributes: (List attributes and codes) HP2 – Single family property*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) Photograph 1. Primary façade, facing east.

*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
1959, Kern County Assessor Records

*P7. Owner and Address:
Jerry and Delanya Wolford
300 S. Garnsey Ave.
Bakersfield, CA 93309

*P8. Recorded by: (Name, affiliation, address)
Greg Rainka and Joseph Freeman
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618

*P9. Date Recorded: March 2009*P10. Survey Type: (Describe) Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"

*Attachments: ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

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*Required Information

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Primary # _____
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*NRHP Status Code 6Z*Resource Name or # (Assigned by recorder) Map Reference No. 08-33

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential*B5. Architectural Style: Ranch*B6. Construction History: (Construction date, alteration, and date of alterations) Built in 1959.*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: unknown

*B10. Significance: Theme n/a Area n/a
Period of Significance n/a Property Type n/a Applicable Criteria n/a

This building does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be a historical resource for the purposes of CEQA. Bakersfield experienced tremendous population growth after World War II that generated a wave of new development. There was a flood of veterans to California immediately following the war, and with it came a great need for more housing. Throughout the decade, Kern County's population remained greater than the available houses, and it was many years before supply caught up with demand. The city's boundaries began to widen as outlying agricultural land was converted to residential tracts, and by the end of the 1950s, the housing gap had successfully been bridged. Twenty square miles of residential development took place in Greater Bakersfield from 1945 to 1955, which included approximately 12,000 new homes built between 1950 and 1955. In particular, the land straddling Stockdale Highway southwest of downtown was teeming with new development.

The unprecedented postwar growth period strained Bakersfield's road and highway system. By the 1950s, Bakersfield began planning street and highway improvements to correct congestion problems. The city ultimately wanted traffic to move around, not through, the downtown area, and led to construction of the Highway 99 bypass in 1963 that routed traffic down a multi-lane freeway along the west edge of the city rather than through the city center on Union Avenue. A decade later, the state finished construction of Highway 58 (now the primary east-west route through Bakersfield) directly south of, and parallel to, Brundage Lane. Census data show a 50% increase in Bakersfield's population from 1970 to 1980. Owing to the new freeways, the southwest of the city was the primary target of growth and new construction efforts. By 1980, 48,000 people lived in the area directly west of the "new" 99 and accessed primarily via Stockdale Highway, a 500% increase from the decade prior, and over one-third of the city's building permits were for residential property in this section of town. (See Continuation Sheet)

B11. Additional Resource Attributes: _____

*B12. References: Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968; "Kern Homes Crisis Aired," *Los Angeles Times*, 7 December 1945; "Three Hundred Veterans Join Rush for 90 Homes," *Los Angeles Times*, 22 May 1946; "Shutdown on Veterans' Housing Project Averted," *Los Angeles Times*, 28 December 1946; "Minter Field Units to House 400 Families," *Los Angeles Times*, 2 February 1947; "Housing Pact Canceled by Bakersfield," *Los Angeles Times*, 7 March 1952. "City Barely Touched," *Bakersfield Californian*, 2 November 1957; "State Okays Oak Street Freeway," *Bakersfield Californian*, 26 November 1957; URS, "Bakersfield System Study, Summary Report," prepared for Council of Governments, City of Bakersfield, County of Kern, Caltrans, December 2002, 12-13; Bob Griffith, "Boom in southwest molds city's shape," *Bakersfield Californian*, 6 Oct. 1980; Chris Brewer, *Historic Kern County*, 88. See footnotes.

B13. Remarks:

*B14. Evaluator: Toni Webb

*Date of Evaluation: December 2011
(This space reserved for official comments.)



DPR 523B (1/95)

*Required Information

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State of California – The Resources Agency
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CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

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Recorded by G. Rainka & J. Freeman Date March 2009

Resource Name or # (Assigned by recorder) Map Reference No. 08-33

☒ Continuation ☐ Update**B10. Significance (continued):**

The residential area bounded by Stockdale Highway to the north, Apache Avenue to the south, Real Road to the east, and the Stine Canal to the west mostly developed at the end of the 1950s. Prior to this time, this land was wholly agricultural with only a handful of residences, and Elcia Drive (via Real Road) was the only paved way in. In 1956, Edward and Monica Armstrong subdivided their land between the Stine Canal and the west terminus of Elcia Drive as Tract 1938. This called for the construction of South Garnsey Road, though the residential tract included only the west side of the street. It fully developed by the end of that decade, and houses were concurrently constructed on the east side of South Garnsey Road, which included this residence.¹

This residence appears unaltered since its construction; therefore it retains basic integrity of location, setting, design, workmanship, materials, feeling, and association. Under NRHP Criterion A or CRHR Criterion 1, this building is not significant for its association with important historic events. Research did not reveal a direct relationship between this property and important historic events within any context, including residential development in post-war Bakersfield. This house is one of thousands that was constructed during a widespread mid-century build-up of the city's housing stock, specifically on outlying agricultural land converted to buildable residential lots.

Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for its association with the lives of persons important to history. Research revealed little information regarding the owners and occupants of this property. The earliest known tenant was Jack Troupe of Culligan Soft Water Service, who resided there at least as early as 1965. It does not appear that Mr. Troupe, and likely any of the individuals related to the development and use of this resource, have made demonstrably important contributions to history at the local, state, or national level.²

Under NRHP Criterion C or CRHR Criterion 3, this building is not significant for possessing distinctive characteristics of a type, period, or method of construction, nor does it appear to be the work of a master. Though this building retains architectural integrity to its date of construction, it is an example of a common, oft-produced type that became quite popular in suburban communities nationwide during the late 1940s and 1950s. The traditional Ranch house is one-story, rectilinear in plan, and features a broad, low-pitched roof with wide eaves and a combination of exterior cladding. The primary façade is generally asymmetrical and may include an integrated garage that projects to the front or side of the house. Details tend to reference architectural precedents, most commonly Colonial Revival. This building generally reflects all of these defining characteristics.

Furthermore, this property does not appear to be a significant or likely source of important information regarding history (NRHP Criterion D and CRHR Criterion 4). This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

¹ Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968, 1975.

² Polk's Bakersfield California City Directory 1960 (Los Angeles: R.L. Polk and Co. Publishers, 1960); Polk's Bakersfield California City Directory 1965 (Los Angeles: R.L. Polk and Co. Publishers, 1965); Ancestry.com, U.S. City Directories [database on-line] (Provo, UT, USA: Ancestry.com Operations Inc, 2008), original data: Polk's Bakersfield (California) City Directory (Los Angeles: R.L. Polk & Co., 1936-1945); Ancestry.com, California Voter Registrations, 1900-1968 [database on-line] (Provo, UT, USA: The Generations Network, Inc., 2008), original data: State of California, United States, Great Register of Voters (Sacramento, California: California State Library).

DPR 523L (1/95)

*Required Information

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Attachments for page 3

Architectural Integrity and the Guiding "Rule of Thumb"

Corresponding Draft EIR Documents

Appendix

Architectural Integrity and the Guiding "Rule of Thumb"

The seven (7) principal observations applied to the properties identified in this addendum to the 175-page 2010 Amicus Preservation Brief, and used to assess the affirmative presence of architectural integrity, are defined as follows:

Location (the properties have not been physically relocated from their original sites or, if relocated, have been located at the present sites for over 50 years).

Design (the architectural idioms of the properties and/or other distinguishing stylistic characteristics are identifiable, classifiable, and relevant to local, regional, state, or national architectural history).

Setting (the principal views looking toward the properties, and the principal views looking away from the properties, have not been unduly altered by a loss of neighboring structures; or have not been unduly obstructed by man-made forms or radical changes in the natural terrain. Landscapes – both indigenous and ornamental – are expected to display anticipated, thus acceptable, growth and maturity. Growth and maturity do not negate considerations of the historic setting, although a loss of landscape may).

Materials (the properties retain a reasonable percentage of their original building product(s) – generally 75% or more – as spelled out in original architectural plans and specifications, again subject to acceptable evolutionary changes expected from generation to generation).

Workmanship (the properties continue to reflect the prevailing methods, finishes, and standards of construction as originally engineered at the time of their completion).

Feeling (the properties retain reasonable physical suggestions of their original place in time, without necessarily being "locked" in the past, since all properties undergo acceptable evolutionary changes from generation to generation).

Association (the properties retain reasonable but more intuitive suggestions of their context in time, with an ability to evoke an awareness of their era of origin, as well as the significant events that defined that era socially, politically, and culturally).

Although properties may display aspects of each of these seven (7) components, it is neither required nor essential that all seven (7) be absolutely evident concurrently.

"The Rule of Thumb"

The guiding "Rule of Thumb" as applied to establish architectural integrity is stated as follows: Were the original architects, builders, owners, members of the owners' families, or immediate neighbors to view the properties or neighborhood today, would they definitively be able to recognize the properties or neighborhood?

If so, the basic integrity standard has been met, in spite of any questions regarding material condition, as long as any adverse material conditions are clearly reversible. The material condition of properties (e.g., paint, shingles, masonry, etc., in need of repair) is evaluated separately from integrity.

Assembled pro bono by John Edward Powell: 10-28 December 2012

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Draft 14: Worksheets (Revised 14 March 2013) Page 9 of 9

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State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #: _____
HRI #: _____
Trinomial: _____
NRHP Status Code: _____
Other Listings: _____
Review Code: _____ Reviewer: _____ Date: _____

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*Resource Name or #: 3904 Marsha Street
Map Reference No.: 09-21A

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Kern

*b. USGS 7.5' Quad Gosford, CA Date 1973

c. Address 3904 Marsha Street City Bakersfield Zip 93309

*d. UTM:

*e. Other Locational Data: Assessor's parcel number 149-131-03

*P3a. Description:

This one-story residence is a bit more than 1,000 square feet, with a hip roof and a front-gabled extension on the right side of the façade. The exterior walls are stucco, while the façade has wood siding with battens as a wainscot from the foundation up to the window sills and in the gable. The house retains its original metal casement windows. Alterations include replacement of the original roofing material with asphalt shingles and replacement of the front door. A driveway on the left (west) side of the house leads to a detached garage at the rear of the lot. Attached to the front of the garage is a large wood canopy that serves as a carport. The rear yard is enclosed by privacy walls of concrete block, approximately six feet high, at the lot lines.
(See continuation sheet, page 2.)

*P3b. Resource Attributes: HP2 – Single family residence; HP4 – Ancillary Building (fallout shelter)

*P4. Resources Present: ☒ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other



Residence at 3904 Marsha Street, Bakersfield

P5b. Description of Photo:
View north.
January 16, 2013

*P6. Date Constructed/Age and Sources: ☒ Historic
1956 (residence) ca. 1960-62 (fallout shelter)

*P7. Owner and Address:
Jose Camberos
3904 Marsha Street
Bakersfield, CA 93309

*P8. Recorded by:
Andrew Hope
Caltrans District 4

*P9. Date Recorded: 1/16/2013

*P10. Type of Survey:
Intensive

*P11. Report Citation: JRP Historical Consulting, LLC, *HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)*, 2012.

*Attachments: ☒ Building, Structure, and Object Record ☒ Continuation Sheets

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*Required Information

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State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
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Primary #:
HRI #

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* Resource Identifier: 3904 Marsha Street

* Recorded by: Andrew Hope, Caltrans

* Date: January 2013

☒ Continuation ☐ Update

***P3a. Description (continued from page 1):**

Behind the garage is an underground fallout shelter of concrete construction. An entrance hatch with a metal cover, approximately two feet by six feet, leads down to a short entry hall. An opening to the right at the end of the hall leads to the main room, which is approximately 10 feet square. A ventilation pipe extends about three feet above the ground just to the east of the entrance hatch. The floor of the shelter is approximately 10 feet below ground, with the roof structure about two feet thick. There may have been a wooden stairway in the entrance originally, or the shelter may have always been accessed by a portable ladder.



Entrance to the fallout shelter in the backyard of 3904 Marsha Street. To the right of the opening is the metal hatch cover, and just in front of the opening is the ventilation pipe. Looking west, with the rear wall of the garage at left.

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* Resource Identifier: 3904 Marsha Street

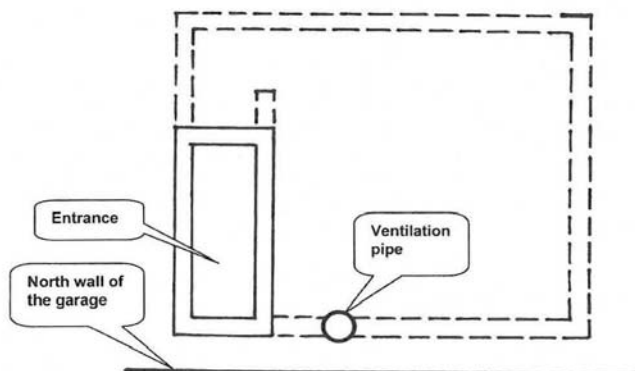
* Recorded by: Andrew Hope, Caltrans

* Date: January 2013

☒ Continuation ☐ Update



View down into the fallout shelter.



Plan of the shelter (underground walls are shown as dashed lines)

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Primary #:
HR#:

BUILDING, STRUCTURE, AND OBJECT RECORD

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*NRHP Status Code:

*Resource Name or #: 3904 Marsha Street

Map Reference No.: 09-21A

B1. Historic Name:

B2. Common Name:

B3. Original Use: Residence

*B5. Architectural Style: Postwar tract house

*B6. Construction History:

The house was built in 1956, and the garage was probably built at the same time. The date of the fallout shelter is unknown, but was probably constructed ca. 1960-62.

B4. Present Use: Residence

*B7. Moved? ☒ No ☐ Yes ☐ Unknown

Date:

Original Location:

*B8. Related Features:

The property includes a residence, detached garage and carport, and a family fallout shelter.

B9a. Architect: Unknown (house and shelter) b. Builder: Mobilhome Corp. (house); unknown (shelter)

*B10. Significance: Theme: Cold War era fallout shelters Area: Bakersfield and Kern County

Period of Significance: 1956-62 Property Type: Residence and fallout shelter Applicable Criteria: A

The property at 3904 Marsha Street is part of the Rancho Vista Tract (map reference number 09-21), evaluated elsewhere in this report. It is property #99 on the list and map in the district evaluation for the Rancho Vista Tract, and is a contributor to the National Register eligible district. It is evaluated here as an individual property because it includes a Cold War era fallout shelter in addition to the 1956 residence. Like the other houses in the tract, the residence was prefabricated in a factory, delivered in one piece to its site, and set down on a prepared foundation. The fallout shelter was probably built ca. 1960-62, although no building permit survives and no other record of its construction date has been found. Philip Vallejo and Jon Brady of Caltrans District 6 did the site investigation and took the photographs. The interior of the fallout shelter was not investigated.

(See continuation sheet, page 5.)

B11. Additional Resource Attributes:

*B12. References:

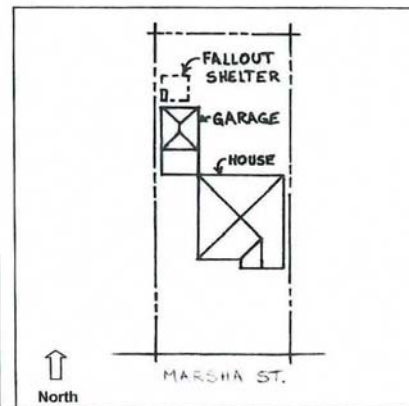
See continuation sheet, page 6.

B13. Remarks:

B14. Evaluator: Andrew Hope
Caltrans District 4
111 Grand Avenue
Oakland, CA 94623

Date of Evaluation: January 17, 2013

(This space reserved for official comments.)



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Primary #:
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* Resource Identifier: 3904 Marsha Street

* Recorded by: Andrew Hope, Caltrans

* Date: January 2013

■ Continuation □ Update

***B10. Significance (continued from page 4):**

Only one home fallout shelter in California has been evaluated for National Register eligibility to date. That shelter is near Sonora in Tuolumne County, and was evaluated by Caltrans in 2011. It was determined ineligible for National Register listing because the associated residence is no longer extant, and the shelter therefore lacks an important aspect of its historic setting and the contextual association as a family shelter. Two other home fallout shelters are evaluated in this report. (See the evaluation of Tract No. 1938, map reference number 09-11.) Both of these shelters are considered ineligible for National Register listing; one because the associated house lacks integrity and the other because the shelter's immediate setting has been significantly altered by the construction of a later garage directly above the shelter. The integrity threshold established by these evaluations is that for a family fallout shelter to be eligible for National Register listing, the associated residence must be extant and possess integrity, and the shelter must possess integrity of setting with respect to its immediate surroundings and its relationship to other buildings on the property.

Extensive context information on home fallout shelters, both nationally and in Bakersfield and Kern County, is provided in the evaluation of Tract No. 1938, prepared by JRP Historical Consulting. All three of the fallout shelters identified in Bakersfield were brought to Caltrans' attention by members of the community. Two are in rear yards and one is accessed from within a modern garage, which is why none were identified during the original survey efforts for the Centennial Corridor project. The discovery of three home fallout shelters in a short period of time as a result of a public meeting suggests that this property type may be more common than previously supposed. Home fallout shelters may be more common in Bakersfield and Kern County than elsewhere in California due to the active promotion of shelter construction by the county's Civil Defense Office. As described in the evaluation of Tract No. 1938, the Civil Defense Office built a model shelter at the Kern County Museum in 1960, distributed nearly 10,000 copies of plans for family shelters, and offered courses in civil defense measures to more than 1,700 people in 1961. In addition, at least two construction companies in Bakersfield built model shelters on their properties. This was probably an unusually high level of activity and promotion of fallout shelter construction compared to other cities and counties in California.

In addition to being a contributor to the Rancho Vista historic district, the property at 3904 Marsha Street is individually eligible for National Register listing. The property meets National Register Criterion A for its association with Cold War tension between the United States and the Soviet Union, and the fear of nuclear war between the two countries. The fallout shelter at the rear of the property conveys in a stark and visceral manner the grim mindset of the time, and the lengths to which people were willing to go to survive a nuclear holocaust. That people seriously considered spending up to two weeks in a small underground box, expecting to emerge to find a devastated landscape, seems strange and possibly even delusional to Americans in the 21st century. However, home fallout shelters provide the physical evidence that people did make such considerations, and that they calculated the probability of nuclear war in a way that justified the expense of building an underground shelter. No other Cold War era property type conveys so vividly this pervasive fear of nuclear war, and home fallout shelters illustrate Americans' characteristically individual, rather than collective, response to that perceived threat. The robust construction of this shelter, with its unusually thick roof and walls of reinforced concrete rather than concrete block, demonstrates a seriousness of purpose and willingness to bear a considerable expense, particularly in comparison to the relatively modest size and cost of the house.

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Primary #:
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* Resource Identifier: 3904 Marsha Street

* Recorded by: Andrew Hope, Caltrans

* Date: January 2013

■ Continuation □ Update

The residence, garage, and fallout shelter on this property retain a high degree of integrity. The residence has suffered only minor alterations. Although the interior of the shelter was not inspected, it is a simple concrete box, not amenable to alteration (particularly since it is underground), and has not been converted to other uses. It retains integrity of location, design, and materials. The shelter also retains integrity of setting, since the property as a whole appears essentially as it must have appeared in 1962, after completion of the shelter. Most importantly, it retains integrity of feeling and association, which allows the property to convey its original purpose and significance.

In conclusion, the property at 3904 Marsha Street in Bakersfield is individually eligible for National Register listing under Criterion A, at the local level of significance, for its association with the Cold War and civil defense measures to survive in the event of a nuclear war. The period of significance extends from 1956, the construction date of the residence, to 1962, the end of the period of fallout shelter construction in the United States. The historic property boundary coincides with the parcel boundary. Character-defining features of the property include the three elements that date to the period of significance: the residence, garage, and underground fallout shelter. The spatial relationship of these three elements is also a character-defining feature. With respect to the shelter itself, the two features that can be seen from the rear yard, the entry hatch and ventilation pipe, are important character-defining features, as they convey the structure's original purpose.

*B12. References (continued from page 4):

Caltrans. *Tract Housing in California, 1945-1973: A Context for National Register Evaluation*. 2011.

JRP Historical Consulting. Evaluation of Tract No. 1938 in Bakersfield. In *HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)*, 2012.

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Attachments for page 4

Bakersfield Californian (see next section attachments)

Audio Interview with Lilly Kelly (see next section attachments)

Corresponding Draft EIR Documents

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Other Listings _____ Review Code _____	Reviewer _____	Date _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-15P1. Other Identifier: 30 Stine Road*P2. Location: ☐ Not for Publication ☒ Unrestricted
(P2b and P2c or P2d. Attach a Location Map as necessary.)*a. County Kern*b. USGS 7.5' Quad Gosford, CA Date 1973 T _____; R _____; ¼ of Sec _____; B.M. _____c. Address 30 Stine Road City Bakersfield, CA Zip 93309

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor Parcel Number: 149-221-24

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This 0.28-acre parcel contains a 1,204-square-foot Tudor Revival house and detached garage. The rectangular residence sits on a concrete foundation, has stucco siding and a composite-shingle side gable roof (Photograph 1). The main entrance is access by concrete steps and sheltered by a shed roof extension which is supported by a modern and decorative metal posts with attached balustrade. The entrance is set between to front-gable projections. Fenestration includes nearly all replacement 1/1 double-hung vinyl windows. The smaller projection north of the entrance has a pair of replacement vinyl windows; the larger and more dominant projection to the south has a large fixed single-pane segmental-arch window set in a wood frame. A small louvered vent is centered beneath each roof apex. An exterior stucco chimney is attached to the south side of the building and the front-gabled detached garage located at the southeast corner of the lot has been converted into a living space with a front flat-roof carport (Photograph 2).

*P3b. Resource Attributes: (List attributes and codes) HP2 – Single family property*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) Photograph 1. Primary façade, facing east.*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
1935, Kern County Assessor Records*P7. Owner and Address:
Gary Steelman and Richard Knight
416 Bermuda St.
Bakersfield, CA 93309*P8. Recorded by: (Name, affiliation, address)
Greg Rainka and Joseph Freeman
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618*P9. Date Recorded: March 2009*P10. Survey Type: (Describe) Intensive*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC. "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"*Attachments: ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

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*Required Information

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*NRHP Status Code 6Z*Resource Name or # (Assigned by recorder) Map Reference No. 09-15

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential*B5. Architectural Style: Tudor Revival*B6. Construction History: Built 1935; replacement windows (date unknown); addition of shed roof over entry (date unknown); detached garage converted to living space (date unknown).*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: unknown*B10. Significance: Theme n/a Area n/a
Period of Significance n/a Property Type n/a Applicable Criteria n/a

This property does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be a historical resource for the purposes of CEQA. The residential area directly south of Stockdale Highway and west of the Stine Canal mostly developed during the 1950s when the vast extent of this land was subdivided as Tracts 1005, 1522 and 1610. Prior to this time, this land was wholly agricultural with only a smattering of residences. This included three identical Tudor Revival homes on the east side of Stine Road just north of Peckham Avenue, each dating to 1935.

After World War II, Bakersfield experienced tremendous population growth that generated a wave of new development. With the flood of veterans to California came a great need for more housing, but Kern County's population remained greater than the available houses into the 1950s. The city's boundaries began to widen as outlying agricultural land was converted to residential tracts, and by the end of that decade, housing supply had caught up with demand. Twenty square miles of residential development took place in Greater Bakersfield from 1945 to 1955, which included approximately 12,000 new homes built between 1950 and 1955. In particular, the land straddling Stockdale Highway southwest of downtown was teeming with new construction. The east side of Stine Road filled with homes concurrently with, but independent of, the development of the surrounding residential tracts (the west side of the street was included in Tract 1522). Residences were built to the north, south, and even in between the trio of Tudors. (See Continuation Sheet)

B11. Additional Resource Attributes: _____

*B12. References: Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968; Kern County Tract Maps, Tract No. 1005, July 3, 1931; Kern County Tract Maps, Tract No. 1522, Dec. 29, 1949, Book 7 of Maps, Page 62; Kern County Tract Maps, Tract No. 1610, April 3, 1952, Book 8 of Maps, Page 1; "Kern Homes Crisis Aired," *Los Angeles Times*, 7 December 1945; "Three Hundred Veterans Join Rush for 90 Homes," *Los Angeles Times*, 22 May 1946; "Shutdown on Veterans' Housing Project Averted," *Los Angeles Times*, 28 December 1946; "Minter Field Units to House 400 Families," *Los Angeles Times*, 2 February 1947; "Housing Pact Canceled by Bakersfield," *Los Angeles Times*, 7 March 1952. See footnotes.

B13. Remarks: _____

*B14. Evaluator: Toni Webb

*Date of Evaluation: December 2011
(This space reserved for official comments.)



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*Required Information

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State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____

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Trinomial _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-15*Recorded by G. Rainka & J. Freeman *Date March 2009☒ Continuation ☐ Update**B10. Significance (continued):**

Under NRHP Criterion A or CRHR Criterion 1, this building is not significant for its association with important historic events. Research did not reveal a direct relationship between this property and important historic events within any context, specifically residential development in Bakersfield during the years surrounding World War II. Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for its association with the lives of persons important to history. Research revealed little information about the owners or occupants of this property. The earliest known tenant was owner/occupant Frank L. Williams in 1951. Frank died in 1955, but it appears that his widow retained the property for sometime after his death. In 1960, the house was used as a rental property and rented by Vernon Reimer, an electrician. The current owner purchased the property in 2006 and resided at a different address. It does not appear that any of the individuals related to the development and use of this resource have made demonstrably important contributions to history at the local, state, or national level.¹ Under NRHP Criterion C or CRHR Criterion 3, this building is not significant for possessing distinctive characteristics of a type, period, or method of construction, nor does it appear to be the work of a master. This particular building is an example of a common historical revival type that became popular in suburban communities nationwide during the 1920s and 1930s. The Tudor Revival style is derived from a variety of late-medieval models prevalent in 16th century Tudor England, and this house has the standard form of an asymmetrical façade featuring a steeply-pitched front gable and segmental arch door and window openings. In addition to lacking significance under this criterion, the replacement of windows not in kind, alteration of the front entry, and the conversion of the detached garage into a living space lend a lack of integrity to the property as a whole. Also, extensive residential development throughout the area nearly two decades after the construction of this house (in particular the construction of a house in 1957 in between this residence and 22 Stine Road) has compromised integrity of location, setting, feeling and association. Furthermore, this property does not appear to be a significant or likely source of important information regarding history (NRHP Criterion D and CRHR Criterion 4). This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

Photographs (continued):

Photograph 2: Detached secondary residence, facing east.

¹ Polk's Bakersfield California City Directory 1951 (Los Angeles: R.L. Polk and Co. Publishers, 1951); Ancestry.com, *California Voter Registrations, 1900-1968* [database on-line] (Provo, UT, USA: The Generations Network, Inc., 2008), original data: State of California, United States, *Great Register of Voters* (Sacramento, California: California State Library); "Deaths," *Bakersfield Californian*, 4 June 1955, pg. 20 (col. 3); "For Rent – Houses, Furnished," *Bakersfield Californian*, 16 September 1960, pg. 39 (col. 1); Kern County Assessor Record.

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*Required Information

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State of California – The Resources Agency DEPARTMENT OF PARKS AND RECREATION PRIMARY RECORD		Primary # _____ HRI # _____ Trinomial _____ NRHP Status Code <u>6Z</u>
Other Listings _____ Review Code _____	Reviewer _____	Date _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-16

P1. Other Identifier: 22 Stine Road

***P2. Location:** ☐ Not for Publication ☒ Unrestricted
 and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***a. County** Kern

***b. USGS 7.5' Quad** Gosford, CA **Date** 1973 **T** _____; **R** _____; **1/4 of Sec** _____; **B.M.** _____

c. Address 22 Stine Road City Bakersfield, CA **Zip** 93309

d. UTM: (give more than one for large and/or linear resources) **Zone** _____; _____ **mE/** _____ **mN**

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor Parcel Number: 149-221-11

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This 0.44-acre parcel contains a 1,578-square foot Tudor Revival-style house and detached garage. The rectangular residence sits on a concrete foundation, is clad in stucco, and has a composite-shingle side gable roof (Photograph 1). A raised segmental arch front entry door opening is centered on the primary façade above a set of concrete steps and between a projecting steeply-pitched front gable bay and a smaller, steeply-pitched gable bay. The latter bay has a pair of double-hung wood windows and the projecting bay has a large fixed 16-light segmental arch wood window. A small louvered vent is centered beneath each roof apex. An exterior brick chimney is attached to the south side of the building and a modern two-car detached garage is located at the southeast corner of the lot (Photograph 2).

***P3b. Resource Attributes:** (List attributes and codes) HP2 – Single family property

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) Photograph 1. Primary façade, facing northeast

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1935, Historic Aerial Photographs

***P7. Owner and Address:**
Bill and Beverly Roper
22 Stine Rd.
Bakersfield, CA 93309

***P8. Recorded by:** (Name, affiliation, address)
Greg Rainka and Joseph Freeman
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618

***P9. Date Recorded:** March 2009

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"

***Attachments:** ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

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*NRHP Status Code 6Z*Resource Name or # (Assigned by recorder) Map Reference No. 09-16

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential*B5. Architectural Style: Tudor Revival*B6. Construction History: (Construction date, alteration, and date of alterations) Built c. 1935*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: unknown*B10. Significance: Theme n/a Area n/aPeriod of Significance n/a Property Type n/a Applicable Criteria n/a

This building does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). The residential area directly south of Stockdale Highway and west of the Stine Canal mostly developed during the 1950s when the vast extent of this land was subdivided as Tracts 1005, 1522 and 1610. Prior to this time, this land was wholly agricultural with only a smattering of residences. This included three identical Tudor Revival homes on the east side of Stine Road just north of Peckham Avenue, each dating to 1935.

After World War II, Bakersfield experienced tremendous population growth that generated a wave of new development. With the flood of veterans to California came a need for more housing, but Kern County's population remained greater than the available houses into the 1950s. The city's boundaries began to spread as outlying agricultural land was converted to residential tracts, and by the end of that decade, housing supply had caught up with demand. Twenty square miles of residential development took place in Greater Bakersfield from 1945 to 1955, which included approximately 12,000 new homes built between 1950 and 1955. In particular, the land straddling Stockdale Highway southwest of downtown was teeming with new construction. The east side of Stine Road filled with homes concurrently with, but independent of, the development of the surrounding residential tracts (the west side of the street was included in Tract 1522). Residences were built to the north, south, and even between, the trio of Tudors. (See Continuation Sheet)

B11. Additional Resource Attributes: _____

*B12. References: Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968; Kern County Tract Maps, Tract No. 1005, July 3, 1931; Kern County Tract Maps, Tract No. 1522, Dec. 29, 1949, Book 7 of Maps, Page 62; Kern County Tract Maps, Tract No. 1610, April 3, 1952, Book 8 of Maps, Page 1; "Kern Homes Crisis Aired," *Los Angeles Times*, 7 December 1945; "Three Hundred Veterans Join Rush for 90 Homes," *Los Angeles Times*, 22 May 1946; "Shutdown on Veterans' Housing Project Averted," *Los Angeles Times*, 28 December 1946; "Minter Field Units to House 400 Families," *Los Angeles Times*, 2 February 1947; "Housing Pact Canceled by Bakersfield," *Los Angeles Times*, 7 March 1952; See footnotes.

B13. Remarks: _____

*B14. Evaluator: Toni Webb*Date of Evaluation: December 2011

(This space reserved for official comments.)



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DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-16*Recorded by G. Rainka & J. Freeman *Date March 2009☒ Continuation ☐ Update**B10. Significance (continued):**

Under NRHP Criterion A or CRHR Criterion 1, this building is not significant for its association with important historic events. Research did not reveal a direct relationship between this property and important historic events within any context, specifically residential development in Bakersfield during the years surrounding World War II. Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for its association with the lives of persons important to history. Research revealed little information about the owners or occupants of this property. The earliest known tenant of the property was a Vivian Rae in 1949. By 1951, the property was owned by rancher Jack P. Denio and his wife Muriel. Denio sold the property to oil worker Joseph Farrell and his wife Virginia the following year. The Farrells retained the property into the 1960s. The house was vacant in 1965. The current owner purchased the property in 1992. It does not appear that Mr. Denio or Mr. Farrell, or likely any of the other individuals related to the development and use of this resource, have made demonstrably important contributions to history at the local, state, or national level.¹ Under NRHP Criterion C or CRHR Criterion 3, this building is not significant for possessing distinctive characteristics of a type, period, or method of construction, nor does it appear to be the work of a master. Though this particular building retains architectural integrity to its date of construction, it is an example of a common historical revival type that became popular in suburban communities nationwide during the 1920s and 1930s. The Tudor Revival style is derived from a variety of late-medieval models prevalent in 16th century Tudor England, and this house has the standard form of an asymmetrical façade featuring a steeply-pitched front gable and segmental arch door and window openings. In addition to lacking significance under this criterion, extensive residential development throughout the area nearly two decades after the construction of this house (in particular the construction of a house in 1957 in between this residence and 22 Stine Road) has compromised integrity of location, setting, feeling and association. Under NRHP Criterion D and CRHR Criterion 4, this building is not significant as a source (or likely source) of important information regarding history. It does not appear to have any likelihood of yielding important information about historic construction materials or technologies. This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

¹ "For Bride-to-Be," *Bakersfield Californian*, 13 October 1949, pg. 8 (col. 1); *Polk's Bakersfield California City Directory* (Los Angeles: R.L. Polk and Co. Publishers, 1952, 1956, 1960, 1965); "Entertaining Teachers," *Bakersfield Californian*, 25 May 1953, pg. 19 (col. 1); "Girl, 14, in Crash," *Bakersfield Californian*, 17 July 1957, pg. 1 (col. 7); Ancestry.com, *California Voter Registrations, 1900-1968* [database on-line] (Provo, UT, USA: The Generations Network, Inc., 2008), original data: State of California, United States, *Great Register of Voters* (Sacramento, California: California State Library); Kern County Recorder, 24 June 1952, Deed, Book 1955, Page 102; Kern County Assessor Record.

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-16

*Recorded by G. Rainka & J. Freeman *Date March 2009

☒ Continuation ☐ Update

Photographs (continued):



Photograph 2: Detached garage, facing east.

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Other Listings _____ Review Code _____	Reviewer _____	Date _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-17P1. Other Identifier: 16 Stine Road*P2. Location: ☐ Not for Publication ☒ Unrestricted*a. County Kern

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Gosford, CA Date 1973 T; R ____; ____ of Sec ____; ____ B.M.c. Address 16 Stine Road City Bakersfield, CA Zip 93309

d. UTM: (give more than one for large and/or linear resources) Zone ____; ____ mE/ ____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor Parcel Number: 149-221-12

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This 0.22-acre parcel contains a modest 1,204-square foot Tudor Revival-style house and detached garage. The residence sits on a concrete foundation, is clad with stucco siding and has a composite-shingle side gable roof (Photograph 1). The building is dominated by a front-gable projection with a segmented arch 16-light wood window below a small louvered vent. A raised segmental arch front entry door opening is centered on the façade and accessed by concrete steps. Other windows include double-hung wood windows, some with wood board shutters. An exterior brick chimney is attached to the south side of the building. The detached garage has a composition-shingle, front gable roof and a carport attached to its west side (Photograph 2).

*P3b. Resource Attributes: (List attributes and codes) HP2 – Single family property*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: Photograph 1.
Primary façade, facing east.*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
1935, Kern County Assessor Records*P7. Owner and Address:
Shelley L. Kraft
16 Stine Rd.
Bakersfield, CA 93309*P8. Recorded by: (Name, affiliation, address)
Greg Rainka and Joseph Freeman
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618*P9. Date Recorded: March 2009*P10. Survey Type: (Describe) Intensive*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"
 *Attachments: ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

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HRI # _____**BUILDING, STRUCTURE, AND OBJECT RECORD**

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*NRHP Status Code 6Z*Resource Name or # (Assigned by recorder) Map Reference No. 09-17

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential*B5. Architectural Style: Tudor Revival*B6. Construction History: (Construction date, alteration, and date of alterations) Built 1935.*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: unknown*B10. Significance: Theme n/a Area n/aPeriod of Significance n/a Property Type n/a Applicable Criteria n/a

This building does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). The residential area directly south of Stockdale Highway and west of the Stine Canal mostly developed during the 1950s when the vast extent of this land was subdivided as Tracts 1005, 1522 and 1610. Prior to this time, this land was wholly agricultural with only a smattering of residences. This included three identical Tudor Revival homes on the east side of Stine Road just north of Peckham Avenue, each dating to 1935.

After World War II, Bakersfield experienced tremendous population growth that generated a wave of new development. With the flood of veterans to California came a need for more housing, but Kern County's population remained greater than the number of available houses into the 1950s. The city's boundaries began to spread as outlying agricultural land was converted to residential tracts, and by the end of that decade, housing supply had caught up with demand. Twenty square miles of residential development took place in Greater Bakersfield from 1945 to 1955, which included approximately 12,000 new homes built between 1950 and 1955. In particular, the land straddling Stockdale Highway southwest of downtown was the site of new construction. The east side of Stine Road filled with homes concurrently with, but independent of, the development of the surrounding residential tracts (the west side of the street was included in Tract 1522). Residences were built to the north, south, and even between, the trio of Tudors. (See Continuation Sheet)

B11. Additional Resource Attributes: _____

*B12. References: Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968; Kern County Tract Maps, Tract No. 1005, July 3, 1931; Kern County Tract Maps, Tract No. 1522, Dec. 29, 1949, Book 7 of Maps, Page 62; Kern County Tract Maps, Tract No. 1610, April 3, 1952, Book 8 of Maps, Page 1; "Kern Homes Crisis Aired," *Los Angeles Times*, 7 December 1945; "Three Hundred Veterans Join Rush for 90 Homes," *Los Angeles Times*, 22 May 1946; "Shutdown on Veterans' Housing Project Averted," *Los Angeles Times*, 28 December 1946; "Minter Field Units to House 400 Families," *Los Angeles Times*, 2 February 1947; "Housing Pact Canceled by Bakersfield," *Los Angeles Times*, 7 March 1952. See footnotes.

B13. Remarks: _____

*B14. Evaluator: Toni Webb*Date of Evaluation: December 2011

(This space reserved for official comments.)



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*Resource Name or # (Assigned by recorder) Map Reference No. 09-17*Recorded by G. Rainka & J. Freeman *Date March 2009☒ Continuation ☐ Update**B10. Significance (continued):**

Under NRHP Criterion A or CRHR Criterion 1, this building is not significant for its association with important historic events. Research did not reveal a direct relationship between this property and important historic events within any context, specifically residential development in Bakersfield during the years surrounding World War II. Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for its association with the lives of persons important to history. Research revealed little information about the owners or occupants of this property. The earliest known owner was Mary Gilbreth of Mary's Millinery and Accessories, who owned the home as early as 1950 and sold the property in 1960 to Muriel Ponder. Ponder was a mechanic for Cummins Service and Sales and retained the property until its sale in 1996. The current owner purchased the property in 2005. It does not appear that any of the individuals related to the development and use of this resource, have made demonstrably important contributions to history at the local, state, or national level.¹ Under NRHP Criterion C or CRHR Criterion 3, this building is not significant for possessing distinctive characteristics of a type, period, or method of construction, nor does it appear to be the work of a master. Though this particular building retains architectural integrity to its date of construction, it is an example of a common historical revival type that became popular in suburban communities nationwide during the 1920s and 1930s. The Tudor Revival style is derived from a variety of late-medieval models prevalent in 16th century Tudor England, and this house has the standard form of an asymmetrical façade featuring a steeply-pitched front gable and segmental arch door and window openings. In addition to lacking significance under this criterion, extensive residential development throughout the area nearly two decades after the construction of this house has compromised integrity of location, setting, feeling and association. Under NRHP Criterion D or CRHR Criterion 4, this building is not significant as a source (or likely source) of important information regarding history. It does not appear to have any likelihood of yielding important information about historic construction materials or technologies.

Photographs (continued):

Photograph 2: Residence and detached garage, facing northeast.

¹ "Air Force," *Bakersfield Californian*, 21 November 1950, pg. 24 (col. 3); *Polk's Bakersfield California City Directory* (Los Angeles: R.L. Polk and Co. Publishers, 1952, 1956, 1960, 1965); Advertisement, *Bakersfield Californian*, 7 February 1952, pg. 22 (col. 2); Ancestry.com, *California Voter Registrations, 1900-1968* [database on-line] (Provo, UT, USA: The Generations Network, Inc., 2008), original data: State of California, United States, *Great Register of Voters* (Sacramento, California: California State Library); Kern County Recorder, 13 September 1960, Deed, Book 3302, Page 397; "Romance Told at Champagne Party," *Bakersfield Californian*, 2 April 1968, pg. 27 (col. 7); Kern County Recorder, 6 June 1996, Affidavit – Joint Tenants, Document No. 196072157; Kern County Recorder, 6 June 1996, Deed, Document No. 196072158; Kern County Assessor Record.

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Other Listings
Review Code _____

Primary # _____

HRI # _____

Trinomial _____

NRHP Status Code 6Z

Reviewer _____

Date _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-18*P1. Other Identifier: 20 Stine Road

*P2. Location: ☐ Not for Publication ☒ Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County Kern*b. USGS 7.5' Quad Gosford, CA Date 1973 T 30S; R 27E; NE $\frac{1}{4}$ of Sec 2; _____ B.M.c. Address 20 Stine Road City Bakersfield, CA Zip 93309

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor Parcel Number: 149-221-13

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This .8-acre parcel property contains a Ranch-style residence, a storage building, and a shed. The 992-square foot residence has an L-shape footprint, concrete foundation, stucco siding, and a composition-shingle cross hip roof with narrow eaves. The front entry door is centered on the west façade beneath a narrow shed roof extension. Fenestration includes multi-light metal casement windows. The building also includes an attached carport which was added in 1967. Both the shed (constructed after 1968) and storage are not visible from the public right-of-way.

*P3b. Resource Attributes: (List attributes and codes) HP2 – Single family property*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: View of main façade, facing east.

*P6. Date Constructed/Age and Sources:

☒ Historic ☐ Prehistoric ☐ Both
1956, Kern County Assessor Records

*P7. Owner and Address:

Eric Alan Prebilsky
20 Stine Rd.
Bakersfield, CA 93309

*P8. Recorded by: (Name, affiliation, address)

Greg Rainka and Joseph Freeman
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618
*P9. Date Recorded: March 2009*P10. Survey Type: (Describe) Intensive*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"

*Attachments: ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record

☐ Other (list) _____

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*NRHP Status Code 6Z*Resource Name or # (Assigned by recorder) Map Reference No. 09-18

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential*B5. Architectural Style: Ranch*B6. Construction History: 1956; carport addition in 1967; storage building built in 1956; shed constructed after 1968.*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: unknown*B10. Significance: Theme n/a Area n/aPeriod of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This building does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be a historical resource for the purposes of CEQA. In the period following World War II, Bakersfield's population expanded rapidly, a result of returning veterans and an improved economic environment. Coupled with federal housing programs that enabled many people to buy homes, the increased population created a demand for housing in Bakersfield that quickly grew beyond the existing available residences. The city's boundaries began to widen as outlying agricultural land was converted to residential tracts; by the end of the 1950s, housing supply had caught up with demand. From 1950 to 1975, the city tripled in size, as Bakersfield continued to enlarge its borders to meet the ever-growing housing demand.

Twenty square miles of residential development took place in Greater Bakersfield from 1945 to 1955, which included approximately 12,000 new homes built between 1950 and 1955. In particular, the land straddling Stockdale Highway (just north of the residence described in this form) southwest of downtown was teeming with new construction during this period. The residential area directly south of Stockdale Highway and west of the Stine Canal developed when the majority this area was subdivided as Tracts 1522 and 1610 in the late 1940s and early 1950s. Prior to this time, this land was wholly agricultural with only a smattering of residences dating to the 1930s. Only the land west side of Stine Road was included in a subdivision (Tract 1522); the parcels on the east side of Stine Road (where this residence is located) appear to have been sold to and developed by individual owners as infill construction. (See Continuation Sheet)

B11. Additional Resource Attributes: _____

*B12. References: "Kern Homes Crisis Aired," *Los Angeles Times*, 7 December 1945; "Three Hundred Veterans Join Rush for 90 Homes," *Los Angeles Times*, 22 May 1946; "Shutdown on Veterans' Housing Project Averted," *Los Angeles Times*, 28 December 1946; "Minter Field Units to House 400 Families," *Los Angeles Times*, 2 February 1947; "Housing Pact Canceled by Bakersfield," *Los Angeles Times*, 7 March 1952; Chris Brewer, *Historic Kern County: An Illustrated History of Bakersfield and Kern County* (San Antonio, TX: Historical Publishing Network, 2001), 77-78; "Big Population Increase Noted," *Los Angeles Times*, 8 May 1955; Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968; Kern County Aerial Photographs, flown by the USGS, 1937, 1947, 1956, 1968; Kern County Tract Maps, Tract No. 1005, July 3, 1931; Kern County Tract Maps, Tract No. 1522, Dec. 29, 1949; Kern County Tract Maps, Tract No. 1610, April 3, 1952. See footnotes.

B13. Remarks: _____

*B14. Evaluator: Andrea Trickey and Toni Webb*Date of Evaluation: November 2009

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-18*Recorded by G. Rainka and J. Freeman *Date March 2009☒ Continuation ☐ Update**B10. Significance (continued):**

Although this residence retains integrity, with the only evident alteration being the carport in 1967, it appears to lack significance under any of the NRHP or CRHR criteria. Under NRHP Criterion A (CRHR Criterion 1), this building is not significant within the context of residential development in Bakersfield during the years following World War II. Instead this house was one of thousands constructed near Bakersfield during the postwar years. Research revealed little information about the owners or occupants of this property. It appears that Walter J. Moore, and his wife Vaurice, owned and occupied this residence as early as 1960. Walter earned a living as a mechanic for Glenn Rose Engineering during the 1960s. The Moores are listed in city directories at this address until at least 1965, however it appears they resided within another residence in later years while retaining this home until Walter's death in 1991. It does not appear that Moores made demonstrably important contributions to history at the local, state, or national level; therefore this building does not appear to be significant under NRHP Criterion B (CRHR Criterion 2).¹ Under NRHP Criterion C (CRHR Criterion 3), this building does not appear to be significant for possessing distinctive characteristics of a type, period, or method of construction, nor does it appear to be the work of a master. This particular building is a modest and ubiquitous example of mid-twentieth century Ranch-style architecture, which became immensely popular in suburban communities nationwide during the late 1940s and 1950s. Furthermore, this property does not appear to be a significant or likely source of important information regarding history (NRHP Criterion D and CRHR Criterion 4). This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

¹ Polk's Bakersfield California City Directory 1952 (Los Angeles: R.L. Polk and Co. Publishers, 1952); Polk's Bakersfield California City Directory 1956 (Los Angeles: R.L. Polk and Co. Publishers, 1956); Polk's Bakersfield California City Directory 1960 (Los Angeles: R.L. Polk and Co. Publishers, 1960); Polk's Bakersfield California City Directory 1965 (Los Angeles: R.L. Polk and Co. Publishers, 1965); Ancestry.com, U.S. City Directories [database on-line] (Provo, UT, USA: Ancestry.com Operations Inc, 2008), original data: Polk's Bakersfield (California) City Directory (Los Angeles: R.L. Polk & Co., 1936-1945); Ancestry.com, California Voter Registrations, 1900-1968 [database on-line] (Provo, UT, USA: The Generations Network, Inc., 2008), original data: State of California, United States, Great Register of Voters (Sacramento, California: California State Library).

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HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-19P1. Other Identifier: 3899 Stockdale Highway

*P2. Location: ☐ Not for Publication ☒ Unrestricted
(P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County Kern

*b. USGS 7.5' Quad Gosford, CA Date 1973 T _____; R _____; ¼ of Sec _____; B.M. _____

c. Address 3899 Stockdale Highway City Bakersfield, CA Zip 93309

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor Parcel Number: 149-221-17; Alternate address: 8 Stine Rd.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The property at 3899 Stockdale Highway includes three buildings, two of which were built in 1977 and the third, a Spanish Eclectic building, was constructed in 1932. The property is located at the southeast corner of Stockdale Highway and Stine Road, and is bordered on the east side by the Stine Canal. The 1,486-square-foot Spanish Eclectic commercial building, originally used as a residence, is situated diagonally on the parcel facing northwest. It includes a two-part roof. The front section has a side gable with red-tile roofing and the rear two-thirds has a flat roof extending from the gable ridge and has composite shingle roofing. A prominent circular tower with a conical red-tile clad roof and segmental arch door openings is centered on the primary façade and flanked by large wood-framed picture windows on both sides. Similar-sized windows are located throughout; however most have fixed or horizontal sliding aluminum sash. The main entrance, located within the tower, consists of an aluminum-framed glass door with sidelights. A detached garage was demolished in 1977 when the building was converted to a commercial property and two buildings were added to the lot. (See Continuation Sheet)

*P3b. Resource Attributes: (List attributes and codes) HP6 – 1-3 story commercial building

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) Photograph 1. Facing south.

*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
1932, Kern County Assessor

*P7. Owner and Address:
Alan Prebilsky
3899 Stockdale Hwy.
Bakersfield, CA 93309

*P8. Recorded by: (Name, affiliation, address)
Joseph Freeman and Greg Rainka
JRP Historical Consulting, LLC
2850 Spafford Street
Davis, CA 95618

*P9. Date Recorded: April 2009*P10. Survey Type: (Describe) Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") JRP Historical Consulting, LLC, "HRER, Centennial Corridor Project, Bakersfield, Kern County, California (EA 06-48460)"

*Attachments: ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

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HRI # _____**BUILDING, STRUCTURE, AND OBJECT RECORD**

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*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) Map Reference No. 09-19

B1. Historic Name: _____

B2. Common Name: Health UnlimitedB3. Original Use: Residential B4. Present Use: Commercial*B5. Architectural Style: Spanish Eclectic*B6. Construction History: Built in 1932; converted to commercial space in 1977; detached garage demolished in 1977; rear additions (date unknown); boarded window openings (date unknown); two buildings added 1977.*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features: _____

B9. Architect: unknown b. Builder: unknown*B10. Significance: Theme n/a Area n/aPeriod of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This building does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be a historical resource for the purposes of CEQA.

The former residence at 3899 Stockdale Highway was initially developed in 1932, during a time of great growth in Bakersfield and Kern County that is largely attributable to the construction of the Atchison, Topeka and Santa Fe Railway, discovery of oil, and agricultural success of the county. Combined, these nineteenth century events expanded the agricultural and industrial markets for Kern County which in turn spurred an influx of new settlement to the region. Between 1905 and 1920, Bakersfield's population more than doubled thanks to the seemingly endless riches teeming from the surrounding oil and agricultural fields. The interest and capital flowing into the city led to more intensive development of the area. During this period more houses and commercial buildings were constructed in Bakersfield than in the city's first forty years. To accommodate the housing needs of this increased population, development extended south and west and the city annexed thousands of acres of unincorporated county lands.

The property was originally constructed in an area populated by agricultural land near the corner of Stockdale Highway and Stine Road, and used the address 8 Stine Road. Several houses along Stine had been constructed south of this residence and one to the north; however, most of the area remained large, open tracts with residences sporadically placed. By the end of World War II, Bakersfield's population exploded and a severe housing shortage led to extensive (See Continuation Sheet.)

B11. Additional Resource Attributes:

*B12. References: Historic Population Census California Counties & Towns 1850-2000, accessed online on October 6, 2009 at www.dof.ca.gov/research/demographic/reports/census-surveys/historical_1850-2000/; Chris Brewer, *Historic Kern County: An Illustrated History of Bakersfield and Kern County* (San Antonio, TX: Historical Publishing Network, 2001), 77; "Street Map of Greater Bakersfield, Kern Co., Calif." (Bakersfield, CA: M.R. Parra & Co., 1917); "May Annex Suburbs of Valley City," *Los Angeles Times*, 4 Jan. 1923; "City of Bakersfield Annexes Territory," *Los Angeles Times*, 8 May 1924. See footnotes.

B13. Remarks:

*B14. Evaluator: Joseph Freeman*Date of Evaluation: December 2011

(This space reserved for official comments.)



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Primary # _____

HRI # _____

Trinomial _____

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*Resource Name or # (Assigned by recorder) Map Reference No. 09-19*Recorded by J. Freeman and G. Rainka *Date April 2009☒ Continuation ☐ Update**P3a. Description (continued):**

Directly south of the main building is a front-gable and flat roof building clad in textured stucco and wood siding with aluminum-sash windows and a glass-panel double-door entrance (Photograph 2). To the south is a Dutch-hip roof building with wide eaves, stucco siding and vinyl- and aluminum-sash windows (Photograph 3).

B10. Significance (continued):

development. This area along Stockdale Highway quickly became a target of developers, and by the early 1950s several subdivisions had been constructed. As the area continued to expand, Stockdale Highway became a commercial row, increasingly populated by businesses instead of residences. Several houses along this stretch of road were converted to commercial properties, as the house recorded here was in 1977. The house north of this building recorded here was eventually demolished. Afterwards the building took the Stockdale address.¹

The property has lost integrity due to the addition of two modern buildings south of the 1932 Spanish Eclectic building, the conversion of that building from a residence to a commercial building, and alterations that have been made over time. Alterations to the original building, including replacement windows and front entrance and the removal of the detached garage, have diminished the integrity of design, materials, workmanship, and feeling. The addition of new buildings and the conversion of the property to a commercial business has diminished the integrity of association, setting and feeling. Under NRHP Criterion A or CRHR Criterion 1, this residence does not appear to be significant for its association with important historic events. Research revealed no direct relationship between this property and important historic events within any context. Specifically, the property does not have significant associations with residential development in Bakersfield during early twentieth century. The property was one of hundreds of homes constructed on agricultural lands converted to residential property during the 1930s. Research did not reveal the original owners or residents of this property. By 1952, when the house used its former address 8 Stine Road, Jesse Robert and Edith L. Rogers lived here. The Rogers lived here until at least 1960. Jesse Rogers worked previously as an oil worker and fireman. In 1979 Gay Don Gibson and Zada L. Mitchell purchased the property. They sold it to the current owner Alan Prebilsky in 1999. The individuals related to the development and use of this resource did not make demonstrably important contributions to history at the local, state, or national level, and thus the property does not appear to be significant under NRHP Criterion B or CRHR Criterion 2.²

Under NRHP Criterion C or CRHR Criterion 3, this building is not significant for possessing distinctive characteristics of a type, period, or method of construction, nor does it appear to be the work of a master. The 1932 building is a modest example of Spanish Eclectic style architecture. This style was used commonly during the first part of the twentieth century for residential buildings, especially in Southern California. The features on this house that represent the style include the round tower located on the front façade, the red tile roofing on the front portion of the structure, and the textured stucco siding. Aside from these few features, however, the building is a typical and modest small house from the early 1930s. Furthermore, built environments are rarely significant under NRHP Criterion D and CRHR Criterion 4 and this property does not appear likely to yield important historical information. This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

¹ Kern County Assessor Records, "3899 Stockdale Highway, Bakersfield, CA, APN: 149-221-17-00," as reported to First American Real Estate Solutions online service, accessed 2008; United States Department of Interior, Division of Geological Survey, Kern County Aerial Photographs, flown by Western Air Photo, file number 8M-832 2923, 1975; United States Department of Interior, Geological Survey, Aerial Photography Kern County, File Number GS-WK 22-13, Scale 1:23,600, August 1952; United States Department of Agriculture, Aerial Photography Kern County, File Number ABL-19R-131, flown by Hycon Aerial Surveys, 1956; United States Department of Agriculture, Kern County Aerial Photographs, file number 13ABL 10-9, 1937.

² Kern County Records Office Records, Grantor/Grantee online index, accessed online at <http://recorderonline.co.kern.ca.us/> on 30 October 2009; .com, *California Voter Registrations, 1900-1968* [database on-line] (Provo, UT, USA: The Generations Network, Inc., 2008) original data; State of California, United States, *Great Register of Voters*, (Sacramento, California: California State Library; Ancestry.com, U.S. City Directories [database on-line];

DPR 523L (1/95)

*Required Information

Response to Comment GP-35

Comment Code	Response
GP-35-1	<p>Thank you for your comments; we appreciate the additional research you have conducted and presented to us. All known historic properties within the project's area of potential effects have been identified and evaluated by professionals who meet the Secretary of the Interior's Professional Qualifications Standards for Archaeology and Historic Preservation as stated in 36 <i>Code of Federal Regulations</i> 61. Within the project study area for Alternatives A through C, 839 historic resources were evaluated, including the properties discussed in your comment letter. For a historic building to be protected under the California Environmental Quality Act or Section 106 of the National Historic Preservation Act, it must meet certain specific criteria for the California Register of Historic Places, the National Register of Historic Places, or as an important property under the California Environmental Quality Act. For a building to qualify, these criteria must be met in terms of how significant it is architecturally or historically and whether it retains what is called the "integrity" of its original state (i.e., whether it retains its original design or materials, among other factors). The qualified architectural historians who conducted historic research and evaluated the subject properties on and near Garnsey Avenue considered the additional information you provided; however, the information did not alter the original determination that the resources are not eligible for listing in the National Register of Historic Places, based on established criteria, and are not historical resources for the purposes of the California Environmental Quality Act. In addition, substantive alterations of character-defining features have been made to the properties over time so that they no longer meet the technical criterion of possessing "integrity," described above.</p> <p>The Historic Property Survey Report was prepared to document identification and evaluation efforts for historic properties (eligible for the National Register of Historic Places) to date. The Historic Property Survey Report followed best practices as set forth by the California Historic Preservation Program, the Secretary of the Interior's historic preservation guidance, and Caltrans' Environmental Handbook/Standard Environmental Reference Volume 2 on Cultural Resources.</p> <p>This document and its attachments provided the information needed to solicit State Historic Preservation Officer concurrence on Caltrans' determination of National Register of Historic Places eligibility and ineligibility for evaluated resources within the area of potential effect. On April 15, 2013, the State Historic Preservation Officer concurred with Caltrans' identification and evaluation findings to date, as presented in the above-noted Historic Property Survey Report.</p> <p>While Caltrans does not submit nominations to the National Register, interested individuals and/or organizations may do so.</p>

Comment GP-36

GP-36

June 18, 2014

Jennifer H. Taylor, Office Chief
Central Region, Environmental, Southern San Joaquin Valley
855 M Street, Suite 200
Fresno California 93721

Ms. Taylor:

Bike Bakersfield requests an addition to the Centennial Corridor project to include a bicycle crossing from Easton Drive to Commerce Drive over the canal. This improvement would improve the bicycle network in Bakersfield by creating a pleasant route for community members to access the Kern River Parkway Trail from the offices and apartments along California Avenue.

The Centennial Corridor presents the opportunity to continue bicycle infrastructure on smaller streets by crossing California Avenue at Easton Drive and then crossing the canal to Commerce Drive and Commercial Way. The City of Bakersfield is improving the traffic signal at Commercial Way and Truxtun Avenue to add a pedestrian crossing and bicycle access across Truxtun to the City's main class 1 bike path. When the project is complete, a family-friendly bicycle route would be provided from Southeast Bakersfield all the way to Southwest Bakersfield.

GP-36-1

The Centennial Corridor provides an opportunity to greatly improve bicycle access to the existing Class 1 bike path on the Kern River Parkway. By improving that access, the project will improve bicycle access to an area that does not currently have a pleasant connection to the Kern River Parkway Trail. The addition of this crossing will reduce pollution in our community by reducing vehicle miles traveled while improving the quality of life by making active transportation more convenient.

This project is in line with the principles supported by the City of Bakersfield in the recently adopted Bicycle Transportation Plan. The plan proposed more than 100 miles of family-friendly bikeways and routes that avoid high-traffic and high-speed arterials in order to encourage those who are interested but concerned to feel comfortable riding on local streets.

Currently bicyclists have to ride on arterial streets like California Avenue and Mohawk to reach the Class 1 bike path and the numerous destinations that can be accessed from it, such as California State University Bakersfield. These roads carry high volumes of vehicle traffic at fast speeds. These conditions minimize the number of people willing to get out and bike for transportation thus minimizing our opportunity to reduce vehicle miles traveled by maximizing our opportunities to promote biking for transportation.

GP-36-2

Bike Bakersfield request the addition of a bicycle crossing from Easton Drive to Commerce Drive over the canal. We believe it is a cost-effective way to help reduce vehicle miles traveled and greenhouse gas while improving our quality of life.

GP-36-3

Thank you very much for your time and consideration.

GP-36

Sincerely,

A handwritten signature in black ink on a light yellow rectangular background. The signature is cursive and appears to read "Jason Cater".

Jason Cater
Executive Director

Response to Comment GP-36

Comment Code	Response
GP-36-1	<p>Caltrans has developed a conceptual layout of a bicycle and pedestrian connection crossing the Carrier Canal between California Avenue and Commerce Drive. Caltrans has decided to include this bicycle and pedestrian crossing as part of the Centennial Corridor Project. This decision was made in response to public requests for a bicycle connection spanning over the Carrier Canal. This improvement would enhance bicycle, pedestrian, and vehicle connectivity and would result in minimal effects to the environment during construction. Please see Appendix E, Volume 2, for project plans.</p>
GP-36-2	<p>Your comment is acknowledged. Caltrans values the safety of the public. If feasible, a new bike path for entering the Class I bike path would be constructed.</p> <p>It is the goal of the Centennial Corridor Project to improve the quality of life for the Bakersfield community, including reducing traffic and vehicle miles traveled. Caltrans recognizes the cost effectiveness and positive effects of nonmotorized transportation on the environment and would continue to look for opportunities to increase bicycle usage.</p>
GP-36-3	<p>Your comment is acknowledged.</p>

Comment GP-37

GP-37

July 3, 2014

Jennifer H. Taylor, Office Chief
California Department of Transportation
855 M Street, Suite 200
Fresno, CA 93721

Reference: Alternative B

Dear Jennifer,

I am a home owner in the path of the proposed freeway; my house will remain, but will be in a reconfigured neighborhood that will destroy all the features that attracted me when I bought this house in 2004. I bought this house because of the location with its accessibility from Stockdale, California Ave and Real Road – that will change with the freeway. I have other concerns that are not properly addressed in the EIR;

GP-37-1

The Centennial Park is very popular and parking is a problem and with the reconfigured neighborhood it will get worse. The reconfigured neighborhood leaves me with one way in and out and with busy days at the park I could be trapped.

GP-37-2

The proposed Sound Wall is next to my neighbor's house, so I am very close to the proposed freeway. I will pickup added traffic noise, smells, pollution that I don't have now. During the construction there will be dust, noise, vibration and construction traffic that will further destroy my quality of life.

GP-37-3

The EIR noted a decrease in local traffic, but that does not sound correct, I believe it will be just the opposite. This extension of 58 is not to reduce local traffic, it will accommodate interstate traffic.

GP-37-4

The areas / lots next to the sound wall are shown to be vacant. I believe these areas will become a haven for undesirable activities. My home safety will be compromised.

GP-37-5

When I bought this house in 2004, it was a beautiful neighborhood, everyone took care of their houses, but since the announcement of the proposed freeway the neighborhood has been in decline. Your project has destroyed the value of all of our homes and made it nearly impossible for us to sell our homes for what we paid.

GP-37-6

Please stop this route through my neighborhood and choose the "No Build" option.

GP-37-7

Sincerely,



Larry Sharette
Homeowner
4405 Kentfield Drive
Bakersfield, CA

Response to Comment GP-37

Comment Code	Response
GP-37-1	<p>It is acknowledged that substantial changes to existing neighborhoods and local circulation would occur. Travel patterns would change as a result of implementing Alternative B due to permanent street closures. Access to Stockdale Highway, California Avenue, and Real Road would be available after construction of the project via local streets and crossings.</p> <p>The proposed overcrossings at La Mirada Drive and Marella Way, as well as the proposed undercrossing at Ford Avenue, would provide three local streets between California Avenue and Stockdale Highway to remain open. These crossings are essential in maintaining local connectivity and traffic circulation for travel within Bakersfield for nonmotorized and motorized uses.</p> <p>At this early stage of the project, it is assumed that all of the above-mentioned design options (Marella Way Overcrossing, Ford Avenue Undercrossing, and La Mirada Drive Overcrossing) would be constructed as part of the project to maintain community cohesion and connectivity at either side of the Alternative B alignment.</p>
GP-37-2	<p>After construction of the project, access to Kentfield Drive will only be provided via Fallbrook Street. The proposed project would not affect the availability of on-street parking along Fallbrook Street once the project is constructed; however, Fallbrook Street would be converted into a cul-de-sac at Marella Way, which would eliminate a few existing on-street parking spaces. There would be sufficient surplus parking on the adjacent streets, and the existing surface parking lots at the park would remain available to park users.</p>
GP-37-3	<p><i>Potential Noise Impacts</i></p> <p>Project construction would result in short-term noise impacts from use of heavy equipment during construction, as well as the delivery and removal of materials to the area. Section 3.6, Construction Impacts, included standard conditions (CI-23 through CI-25) listed under Avoidance, Minimization, and Mitigation Measures that would reduce temporary construction-related noise and vibration, which would cease when construction is completed.</p> <p>The current Preferred Alternative B alignment has been designed to the greatest extent practicable to be depressed in the general area of your property to aid in mitigating potential noise impacts. Additionally, the potential short- and long-term noise effects of the project and measures to address those effects are detailed in Section 3.2.7, Noise, of the final environmental document (Volume 1). Your property is represented as RB-51. A comparison of current noise levels to the projected noise levels in 2038 under the No Build Alternative and the build alternatives is provided. Results of the noise analysis for each build alternative indicate traffic noise would generally increase as a result of the Preferred Alternative B. Traffic noise is anticipated to increase from 51 decibels to 62 decibels. To mitigate for noise impacts, a sound wall will be constructed (S529), which would reduce noise levels to 59 decibels at your property. A noise level of 59 decibels is not considered a noise impact as this noise level is well below the FHWA Noise Abatement Criteria of 67 decibels for residential land uses. In addition the 59 decibels will only be experienced during peak traffic hours; the daily exposure would be even less than 59 decibels because traffic noise subsides drastically during late night or early morning hours.</p> <p><i>Permanent Air Quality Effects</i></p> <p>The air quality study prepared for the Centennial Corridor Project indicates that potential air quality impacts were found to be less than significant and that the project would improve regional air quality due to reduction in congestion on local roadways and vehicle idling. Improvements to air quality are also attributed to the improved pollution emission performance of a modernizing fleet of all vehicles, especially heavy diesel trucks, as a result of Federal and State fuel content and engine emissions rules. In addition, the results of the air quality analysis indicate that the Centennial Corridor Project would be within regional and Federal air quality</p>

Comment Code	Response
	<p>standards and would not cause or contribute to a violation of any air quality standards. To further minimize air quality pollutants within the general area of the project, Caltrans has entered into a Voluntary Emission Reduction Agreement with the San Joaquin Valley Air Pollution Control District. Through this agreement, targeted improvements will be provided within the general area along the Preferred Alternative B alignment. More detailed information on air quality analysis can be found in Section 3.2.6, Air Quality. For more information on the Voluntary Emission Reduction Agreement, please see Appendix L, Volume 2, of this final environmental document.</p> <p><i>Air Quality Effects during Construction</i></p> <p>Construction of the project has the potential to create air quality impacts through the use of heavy-duty construction equipment. Fugitive dust emissions would result from earthwork and onsite construction activities. Reductions in fugitive dust can be achieved by onsite mitigation measures. Compliance with the standard conditions SC-CI-20 through SC-CI-22 listed under Avoidance, Minimization, and Mitigation Measures – Air Quality, Standard Conditions (refer to Section 3.6, Construction Impacts), would reduce construction emissions. Some of these measures to control dust include using water or chemical stabilizer/suppressant, covering disturbed areas with tarps, and limiting speeds in unpaved areas. Air emissions associated with construction activity would be temporary and would cease to occur after project construction is completed.</p> <p><i>Potential Traffic Impacts during Construction</i></p> <p>The potential for traffic disruption during construction of the project would mostly exist where bridge crossings would be built, at connections to existing road and highway facilities, and where ramp work would be done, including ramp closure work. The duration of construction travel-time delays in the vicinity of specific construction zones is contingent on the scope of the work and could be expected to last from a few days to more than a year, depending on the construction zone, and may require motorists to adjust their schedules to accommodate longer travel times. Detour routes will be provided if road closures are required. A Traffic Management Plan will be prepared during the final design phase. This document would provide details on detour plans and required notifications prior to any road or lane closures.</p>
GP-37-4	<p>The Centennial Corridor Project relieves traffic on local streets such as Truxtun Avenue, Stockdale Highway, Ming Avenue and Rosedale Highway. The Preferred Alternative B alignment would also relieve the double loading of vehicular traffic on State Route 99 between State Route 58 (East) and Rosedale Highway (current alignment of State Route 58 West). The additional capacity provided by the build alternatives compared to the No Build Alternative would help reduce congestion on adjacent local roadways because traffic is expected to shift to the freeway. Traffic volumes will increase on State Route 58 East, State Route 99 south of State Route 58 East, and the Westside Parkway. Figure 3-16 of the Traffic Study technical report illustrates roadways which will experience reduced traffic volumes compared with the No Build alternative.</p>
GP-37-5	<p>Vacant spaces next to sound walls are sometimes necessary to provide workers access for general maintenance of sound walls and landscaping. Please note that the project has limited design at this stage of the project development process, and areas that are shown to be vacant may be used to construct other features of the project, such as stormwater treatment devices. If excess remnant lots are not used by the project after construction, Caltrans may decide to keep or offer to sell the excess property to the city of Bakersfield.</p> <p>If a home or building has been acquired for the project, Caltrans and the city of Bakersfield have developed a strategy to minimize vacant properties. To enhance safety and to minimize, graffiti and vagrancy problems associated with vacant buildings, Caltrans and the city of Bakersfield would reduce the amount of vacancy by implementing the following options for acquired properties: (1) rent the homes and businesses on a month-to-month basis to keep them occupied as long as</p>

Comment Code	Response
	<p>possible in advance of demolition; or (2) demolish each building as soon as feasible after acquisition. This latter option would result in vacant lots interspersed in business areas and neighborhoods. With either option, proper management of acquired property is a key consideration.</p> <p>In addition, the Bakersfield Police Department, the Kern County Sheriff's Department, and the California Highway Patrol would continue to provide law enforcement and police protection services to the project area. Furthermore, emergency vehicle access for police, fire protection, and emergency services would be maintained at all times. Law enforcement, fire, and emergency services could experience slightly increased response times because of construction-related road closures, temporary detours, and increased traffic congestion. It is not expected that temporary road closures would result in more than 1 mile of out-of-direction travel because nearby alternative routes would be maintained and identified as part of the detour plans.</p> <p>In addition, Chapter 8.29 (Litter Control) and 8.80 (Abatement of Public Nuisances) of the Bakersfield Municipal Code would be enforced throughout Bakersfield, including on vacant lots and areas adjacent to the project right-of-way. The city of Bakersfield's Litter Ordinance prohibits littering and provides that no person shall throw, deposit, or accumulate litter in or upon any public place or private premises. Furthermore, each violation of the Litter Ordinance is declared to be a public nuisance. The Bakersfield Municipal Code provides general enforcement authority over public nuisances and mandates that it shall be the duty of every property owner to abate any public nuisance defined under the Bakersfield Municipal Code.</p> <p>Accordingly, the Bakersfield Municipal Code allows for issuance of notices of violations, correction orders, field citations, inspection of public or private property, and the use of whatever judicial and administrative remedies provided under the Bakersfield Municipal Code or applicable State law. Therefore, enforcement of the Bakersfield Municipal Code and applicable State laws is anticipated to deter undesirable activities from vacant areas and lots located adjacent to the project.</p>
GP-37-6	<p>Several comments were received regarding property values. Some individuals have expressed a general belief that the project would result in decreased property values due to various reasons, including temporary construction impacts, property acquisitions, and/or project features being closer to properties than previously. However, the final environmental document does not specifically discuss property values as part of the California Environmental Quality Act/National Environmental Policy Act analysis.</p> <p>The Centennial Corridor Project may have an effect on property values, but it is not likely to be a major change based on literature that Caltrans reviewed and summarized as part of its standard environmental practice.</p> <p>The effects of highway improvements on property values have been studied extensively, especially the impacts on single family residential property. Most studies, though not all, conclude that new transportation facilities, including freeways, have an overall positive effect on property values.</p> <p>One such independent research study, conducted by professors from Cal Poly University, Pomona, evaluated the effects on housing prices of a new freeway in Southern California, the Interstate 210 extension, which opened in 2002 (Reibel, et. al. 2008¹⁷). It is worth noting that in analyzing four years of housing sales data, the researchers found that while all house prices generally continued to climb in the freeway corridor, those houses located within 0.4 mile of the new freeway facility did not see their values rise quite as rapidly. The authors attributed this, as have other studies, to certain negative effects associated with freeways which are often found at very short distances on houses nearby, such as increased noise and air pollution, and which may have the effect of keeping the value of the house from increasing at</p>

¹⁷ Reibel, Michael. House Price Change and Highway Construction: Spatial and Temporal Heterogeneity. California State Polytechnic University, Pomona.

Comment Code	Response
	<p>the same rate of those located a bit further away (that is, beyond 0.4 mile). At the next functional range of distances, the benefits are still close enough to be beneficial but the general negative freeway proximity impacts are diminished. At even greater distances away from the new freeway, the added value of increased mobility and accessibility gradually declines to zero, where there is no perceived benefit. In particular, price appreciation following the freeway construction is the slowest for houses in the closest proximity to the freeway (within 0.4 mile), much faster at moderate distances, and slower again as the distance further increases. In addition, another study concluded that freeway design is also an important factor, with depressed freeways contributing most to property values (Siethoff 2002¹⁸). This pattern is consistent with earlier studies reviewed for Caltrans Standard Environmental Reference Volume 4 Appendix D. Another study conducted for the Arizona Department of Transportation and the Federal Highway Administration California found that property values increase at a greater rate for both commercial and multi-unit apartments over single family residences (Carey: 2001¹⁹). For more information regarding residential property values, please refer to Section 4.2.2 of the <i>Community Impact Assessment</i> (2014) and/or Caltrans' <i>Right of Way Manual</i>, available online at http://www.dot.ca.gov/hq/row/rowman/manual/.</p>
GP-37-7	Your support for the No Build Alternative is acknowledged.

¹⁸ Siethoff, Brian ten. Property Values and Highway Expansions: An Investigation of Timing, Size, Location, and Use Effects. Cambridge Systematics, Inc. Cambridge, MA. January 2002.

¹⁹ Carey, Jason. Impact of Highways on Property Values: Case Study of the Superstition Freeway Corridor. Arizona Department of Transportation. Phoenix, AZ. October 2001.

Comment GP-38

GP-38

Brian and Sharon Self
11120 Rockridge Way
Bakersfield, CA 93311
Home phone: (661) 665-0076
e-mail: brian_self2003@yahoo.com

July 4, 2014

Ms. Jennifer Taylor
California Department of Transportation
Environmental Division
855 M Street, Ste 200
Fresno, CA 3712

RE: EIR of Alternative B of the Centennial Corridor Project

Dear Ms. Taylor,

We are writing to express our opposition to the selected Alternative B of the proposed Centennial Corridor Project. There are also multiple inaccuracies and outright errors in the DRAFT EIR document. The EIR also leaves many critical issues either partially or completely unanswered. These should be address in the FINAL EIR document. We believe Alternative C is far superior and should have been the selected option and even the "No Build" Option is superior to Alternative B.

GP-38-1

Our interest in this project comes from Brian's position as a board member at Bakersfield First Assembly of God, board member of Stockdale Christian School, and branch manager of a 9 person business in the impacted area. Also, both of our children attended Stockdale Christian School. We also have many friends and family in the areas that would be impacted by all three alternatives.

4(f) Finding

It would appear that the major justification for selection of Alternate B rests on the finding that Alternative C violates Section 4(f) of the Department of Transportation Act of 1966. This is in spite of Alternative C having remediation so that the park in question, Saunders Park, would, AFTER the project is complete be the same size, at the same location and with the same or improved amenities. While a small sliver (3.2 acres of the park) would be used for the project, this would be replaced by the same amount of land that is currently adjacent to the park. Therefore, if a park exists at 3300 Palm St. and after Alternative C is complete the same park is still there with the same local access, size and features then has anything really been "used". Is there any case law or legal precedent that support this narrow interpretation?

GP-38-2

Environmental Justice Communities

Extensive discussion is spent on the disparate impact to certain minorities regarding properties taken in all Alternatives. The implication is that using percentage of minorities is a valid measurement. This ignores two basic facts. At multiple community meetings, people potentially impacted by Alternative C where excited. Many said things like, "I hope they take my dump and move me somewhere nicer". This

GP-38-3

GP-38

compares with the residents who will lose their homes under Alternative B who have formed a legal defense fund to try and stop the project. Even under the best of circumstances, the costs of Alternative B will increase due to litigation expenses. Were any surveys conducted to residents potentially displaced under the various Alternatives as to their attitudes? What about their neighbors? The anecdotal evidence seems to show the residents of Alternative C are mixed (some want C, some want No Build, some want B and many don't care). Conversely, the residents of Westpark are universally opposed to Alternative B. The actual "justice" to many of the lower income areas of Alternative C might be to "take" those properties and move the impacted families. To not even consider their opinions seems to miss the point.

GP-38-3

Second, Alternative B actually forces more minorities to lose their homes. While the percentage is higher in a few census tracts, the actual numbers of minority families forced to move is higher with Alternative B.

GP-38-4

Section 4.2.3 Valley Fever

Has any testing been done to see if Valley Fever spores are present in the dirt of the proposed route? The section of roadway that will be adjacent to Stockdale Christian School and the Assembly Manor will be elevated. How much fill dirt will be used in this section? Where will the fill dirt come from? What testing, if any, will be done to the fill dirt PRIOR to it being used to ensure the dirt and resulting dust from the construction of the elevated sections will be free from Valley Fever spores?

The DRAFT EIR mentions mitigation measures will be used including dust masks for construction crews. What, if any, mitigation measures will be available for the hundreds of children at Stockdale Christian School?

GP-38-5

Given that there are over 1,000 sensitive receptors with heightened vulnerability to Valley Fever who live and/or attend school within 400' of the proposed elevated section of the roadway, what indemnification, if any, will be provided to Bakersfield Assembly of God church and Stockdale Christian School in the event that a student, worker, member or member of the Assembly Manor contract Valley Fever?

Community Character – pg 100

The report states, "with Alternative C, air quality impacts would be experienced by residents living closer to the freeway in a similar way as that described under Alternative A and B above". This is factually incorrect. Much of Alternative C parallels existing SR99. For residents living to east of SR99, there would be little to no change. If they live 300' from SR99 today they would still be 300' from the freeway. Residents living 300' west of SR99 would now be perhaps 100' away from the new freeway. As a result, residents might experience some additional air quality impacts but they would be minor.

GP 38 6

Conversely, with Alternative A and B, large numbers of people who are today 1,000' OR MORE from the nearest freeway (including all the children at Stockdale Christian School and all the senior tenants of the Assembly Manner) will be within 500' of the new freeway. Any calculation of the number of households and the distance to the freeway (under Alt A, B, C and No Build) would show a huge INCREASE in numbers exposed to increased air pollution with Alt A or B compared with C or No Build.

GP-38

Community Impact Assessment – Property Values

This section of the report assumes (with no actual facts or analysis) that there will be no long-term impact or reduction in property taxes to the City of Bakersfield. This assumption is patently false. The report reaches this conclusion (again, with no facts) by assuming that a 5% decrease in values in the “abutting zone” is off-set by increases in the “secondary zone”.

Page 122 discusses and defines a “Secondary Zone” of 5-8 blocks from the freeway. The report states, “this zone typically receives some of the benefits generally associated with being located near roadway improvements, in the form of improved accessibility....”. For this project, there is NO “secondary zone”. Currently, the access to the freeway system is at California or Stockdale Highway (SR99) or Mohawk (Westside Parkway). These will be the same access points under all alternatives including No Build. No residents of the Westpark neighborhood or any adjacent neighborhood will have improvement in access.

The next paragraph makes an even more patently false assumption that “there is likely to be no substantial net increase or decrease in the overall property values at the local level”. The actual facts in this case have shown a reduction in property values for the Westpark neighborhood of over 25% compared to comparable neighborhoods that are away from this project. It is interesting that when valuing property for “takings” for the project, per Cal Trans regulations, appraisers are using similar properties in unaffected neighborhoods where the values are 25% higher. Yet, the Draft EIR makes the assumption that there will be no negative tax impacts on the city. Actual observable facts in this project would imply a 25% reduction in property values for the entire Westpark neighborhood.

GP-38-7

This tax base reduction would be expected for Alternative A and B but not for Alternative C or the No Build Option. Since Alternative C is largely adjacent to existing freeway there actually would be minimal impact to existing property values and the tax base. Our estimates of the actual, long-term tax loss would be \$ 1.5 million per year for a 20 year impact of \$ 30 million. While this is a very small part of the City of Bakersfield’s overall budget, it is significant enough (and easy enough to measure and calculate) that it should be included in the document. The decision making process should include these lost tax revenues (which will result in either higher taxes or lower services by the residents of the city).

For the Final EIR, can you calculate (or at least estimate) the actual long-term tax loss to the City of Bakersfield for each Alternative? At the very least, all properties within 500’ of the proposed route (we would argue that the real distance is much greater based on observed results) should be discounted by 25% (again, this is the actual observed impact) and then the property tax reduction calculated.

Community Character – Religious Institutions

Please note that there is no mention of Bakersfield First Assembly of God on page 131 or on Table 4.20. This is a gross and frustrating oversight. Bakersfield First Assembly has hosted multiple meeting including those attended by Cal Trans staff. The church is the largest in the area (by both members, services and attendees) and is located within 400’ of Alternative B. Please correct this oversight in the final document. Assembly Manor is at least mentioned on both page 11 and Table 4.20, (pg 130) but listed as a retirement home.....(actually it is senior living apartments for low income seniors but close enough).

GP-38-8

GP-38

Also, please correct the “approximate distance” in Table 4.20 for Stockdale Christian School. It currently shows 1000’ when the actual distances from the school rooms and playgrounds are more like 400’ (less than that to the nearest classroom.....our estimate is 350’).

GP-38-8

Air Quality

Under the discussion of “sensitive receptors”, page 171 ignores BOTH Stockdale Christian School AND The Assembly Manor. Both of these are well within 400’ and should be included in this discussion. This error is propagated throughout the document. Pg 32 under Alternative B Sensitive Receptors also states “Stockdale Christian School, located about 1,000’ west of the alignment”. Again, this is factually incorrect as the school and nearest classrooms and playgrounds are approximately 350-400’ from the proposed location of Alternative B.

GP-38-9

For Carbon Monoxide, page 21 states, “carbon monoxide micro-scale modeling is required to determine whether a transportation project would cause or contribute to localized violations of carbon monoxide NAAQS.” It does not look like any micro-scale modeling was done, even in areas with large populations of sensitive receptors. If not, why were these not done? If so, where are the results?

Under small particulate future trends, page 46, Table 4-5, where were these trends based on?

Chapter 6 – Mitigation

Table 4-9 shows NOx pollution will be approximately six times the legal limit during year one of construction (11.26 vs. threshold of 2.0). The discussion of mitigation efforts references fees paid. Who pays the fees? Where is the money spent? On the surface, it would appear that the impact of increased pollution would be borne locally. The “fees” would increase the cost of the project which will ultimately be borne by local taxpayers (given that Federal Funds are limited and capped, all extra costs and fees will be local responsibility). Are there any assurances that these “fees”, if any, would be used locally? It certainly looks like local taxpayers would pay a penalty for a project that worsens our local air and then see the money from these penalties spent on other projects (improved full efficiency elsewhere in the state?) for “off-site emissions reduction”. Who determines what qualifies for “off-site emissions reduction” and who ultimately approves and authorizes the use of the funds.

GP-38-10

Schedules

Page 9 states construction “is expected to begin in June 2016”. There have been numerous schedules and delays in the project so far. What is this tentative start date based on? Can we get a more detailed GANT or PERT chart of the various steps and process? Specifically, how long will the dirt movement and actual construction take?

GP-38-11

Thank you for your consideration of these concerns.

Regards,

Brian and Sharon Self

Response to Comment GP-38

Comment Code	Response
GP-38-1	Your opposition to Alternative B and your support for Alternative C and the No Build Alternative are acknowledged.
GP-38-2	<p>Both Rancho Vista and Saunders Park are properties protected by Section 4(f) of the Department of Transportation Act. Section 4(f) prohibits the Secretary of Transportation from approving a project that uses a Section 4(f) protected property if there is a feasible and prudent alternative to that use. Under Section 4(f) regulations, neither Alternative A nor C can be identified as the Preferred Alternative unless no other build alternative could be shown not to be prudent and feasible. Even with modifications to Alternatives A and C, avoidance of Section 4(f) resources was not possible. The analytical process required by Section 4(f) is addressed in extensive detail in the final environmental document in Appendix B, Section 4(f) Evaluation. The analysis adhered to Caltrans' Standard Environmental Reference, Federal Highway Administration guidance and the regulations of 23 <i>Code of Federal Regulations</i> 774, and it has received approval from the Federal Highway Administration following a legal sufficiency review. The Section 4(f) analysis is adequate.</p>
GP-38-3	<p>Executive Order 12898, <i>Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations</i>, mandates that federal agencies take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Neighborhood demographics serve as the main criteria for objectively identifying environmental justice communities. More subjective methodologies such as public opinion, do not factor into the analysis.</p> <p>However, Caltrans developed and mailed a neighborhood survey form to about 16,000 residents living within 1,000 feet of each of the build alternatives in 2009 (see Section 3.1.4.1, Community Character and Cohesion, Volume 1) to gauge residents' sense of the Centennial Corridor Project; more than 920 responses were returned. The survey included questions relating to one's perceived quality of life and sense of neighborhood. Information gathered from those surveys was included in the discussion concerning neighborhoods.</p>
GP-38-4	<p>While environmental justice communities were identified to exist in each of the alternatives, with a slightly higher percentage number of people residing within the affected Census tract block groups of Alternatives A and C over Alternative B, the analysis concluded the Centennial Corridor Project would not result in "disproportionately high and adverse" effects on environmental justice communities with any of the project alternatives because of the roughly equivalent distribution of the effects on all communities through which the alignments pass. Because of the way U.S. Census data is collected, and the need to protect the confidentiality of individuals and households, the number of people who may be displaced and who fall within the definition of belonging to environmental justice population cannot be precisely determined.</p> <p>However, while Census Tract 18.01 Block Group 1 is considered an environmental justice community, not all residents would be displaced. Section 3.1.4.3, Environmental Justice, discusses how many residences and businesses would be displaced in this area compared to the rest of each alignment. For Alternative A, about 7.5 percent of this group would be displaced, with only about 1.6 percent displaced by Alternative B, but about 26.6 percent to be displaced by Alternative C. Impacts to an environmental justice community from relocation would be considered to be much greater for Alternative C.</p>

Comment Code	Response
GP-38-5	<p>Caltrans has outlined appropriate mitigation efforts for Valley Fever and air quality, including the use of a chemical stabilizer/suppressant, tarps and vegetative groundcovers, and water during construction. Valley Fever fungal spores can be found throughout the country and it is recognized that temporary soil disturbance during construction grading activities could cause fungal spores (if present) to become airborne, potentially putting residents at risk of contracting Valley Fever, especially children and the elderly. However, there are many preventive and precautionary measures that can be undertaken by individuals to reduce exposure, including the use of dust masks when conducting outdoor activities; seeking prompt medical treatment if flu-like or respiratory illness occurs during or within a few weeks following outdoor activities; and getting a <i>coccidioidin</i> skin test to determine susceptibility to the disease.</p> <p>Compliance with Standard Condition SC-CI-21, under the Avoidance, Minimization, and Mitigation Measures in Section 3.6, Construction Impacts, of the final environmental document (Volume 1), would control dust during project construction. As a result, those measures would reduce the potential for Valley Fever exposure during construction of the project.</p> <p>Approximately 525,000 cubic yards of fill dirt will be used between California Avenue and the depressed portion of State Route 58. The borrow site will be identified by the construction contractor. Testing of fill dirt for Valley Fever spores are beyond the requirements under the California Environmental Quality Act and National Environmental Policy Act.</p>
GP-38-6	<p>It is acknowledged that there will be a slight decrease in air quality in your neighborhood where it did not exist previously. However, the air quality study prepared for the Centennial Corridor Project indicates that potential air quality impacts were found to be less than significant and that the project would improve regional air quality due to reduction in congestion on local roadways and vehicle idling. Improvements to air quality are also attributed to the improved pollution emission performance of a modernizing fleet of all vehicles, especially heavy diesel trucks, as a result of Federal and State fuel content and engine emissions rules. In addition, the results of the air quality analysis indicate that the Centennial Corridor Project would be within regional and Federal air quality standards and would not cause or contribute to a violation of any air quality standards. More detailed information on air quality analysis can be found in Section 3.2.6, Air Quality.</p> <p>Current residents living along the State Route 99 between the existing SR-58 and Rosedale Highway would experience a reduction in vehicle emissions due to diverted traffic to the Preferred Alternative B alignment. The concentration of air pollutants within this segment of SR-99 from vehicles would be less intense as a result of the project. To further minimize air quality pollutants within the general area of the Preferred Alternative B alignment, Caltrans has entered into a Voluntary Emission Reduction Agreement with the San Joaquin Valley Air Pollution Control District. Through this agreement, targeted improvements will be implemented adjacent to the Preferred Alternative B alignment. See Appendix L, Volume 2, for information on the programs and grants that are offered to local businesses, residents and municipalities that are designed to generate real and quantifiable reductions for the Bakersfield area through this Voluntary Emission Reduction Agreement. With the programs offered to residents near the project alignment, reductions in construction emissions within the project area would be reduced by the following in three years:</p> <ul style="list-style-type: none"> • Year 1 – 1.9 tons of reactive organic gasses/33.6 tons of nitrous oxides/7.6 tons of particulate matter (PM₁₀). • Year 2 – 1.45 tons of reactive organic gasses/16.5 tons of nitrous oxides/7.3 tons of particulate matter (PM₁₀). • Year 3 – 0.4 tons of reactive organic gasses/2.55 tons of nitrous oxides/0.7 tons of particulate matter (PM₁₀).

Comment Code	Response
	<p>In addition to the Voluntary Emission Reduction Agreement, Caltrans would provide a one-time \$200,000 grant to a non-profit organization to give trees to residents along the Preferred Alternative B alignment. Trees will be offered to residents living within 500 feet of either side of the new freeway. If trees are available after the initial offering, they would be offered to residents living within 1,500 feet of the new freeway. Although the trees are supplied through this grant, it is the responsibility of the person(s) accepting the tree(s) to plant and maintain them.</p>
GP-38-7	<p>The analysis contained in the final environmental document concerning property values is based on established Caltrans procedures. For more information regarding Caltrans procedures on property values, please visit http://www.dot.ca.gov/hq/row/rowman/manual/ch10.pdf. Positive and adverse effects of projects have been studied in various states and by the Federal Highway Administration. Primary factors include the property's proximity to the new highway facility. Some of the more common effects that can decrease property values are noise and emissions from traffic. Properties generally increase in value with improved access and mobility. Whether the net effect is positive depends on how close the property is to the transportation facility, the type of land use (e.g., commercial or residential), and the relative changes in accessibility, noise, and air quality. Some businesses could experience an increase in economic activity with improved access, increased capacity from the new State Route 58 freeway facility, and an increase in the number of potential customers. Based on traffic studies, it has been found that the overall reduction in traffic congestion brought about by the Centennial Corridor Project will enhance rather than impair access throughout the project study area. Associated landscaping and refinements in design aesthetics, such as the proposed mitigation for the Centennial Corridor Project, have in other case study examples demonstrated a positive effect on residential property values than without those features incorporated into a project. The potential for loss of value specifically related to construction of the Centennial Corridor Project is addressed in the project Community Impact Assessment, as well as in the final environmental document Section 3.1.4, Community Impacts.</p> <p>The Community Impact Assessment contained additional analysis that is summarized in the final environmental document. Although additional fiscal analyses could be performed, this effort would yield very little new information in terms of either public disclosure or providing information to aid in the selection of a Preferred Alternative. It should be noted, however, the displacement of business properties results in the loss of the property taxes they pay to finance local government activities, loss of sales tax and business tax generated by the businesses, and loss of jobs that are held by local citizens.</p>
GP-38-8	<p>The analysis in the final environmental document considers Stockdale Christian School, Assembly Manor, and First Assembly of God Church within 375 feet of the nearest travel lane. The distance of these buildings to the Alternative B alignment has been revised throughout the document.</p>

Comment Code	Response
GP-38-9	<p>The final environmental document has been revised to indicate that the distance of the Alternative B alignment to Stockdale Christian School and Assembly Manor are within 400 feet of the alignment and are considered sensitive receptors. Micro-scale modeling was conducted for the project and the results are provided in Section 3.1.4.3 under the <i>Air Quality</i> sub-section. A total of 10 intersections were analyzed using the micro-scale model. At these intersections, none of the calculated concentrations were above the established Federal or State standards and all have been shown to be about the same in absolute value.</p> <p>Particulate matter emissions were modeled using the current Environmental Protection Agency approved emissions model EMFAC2011. Results of the EMFAC modeling and conformity analysis determined that annual average concentrations of fine particulate matter (PM_{2.5}) along the study area corridor would be less than the currently established applicable National Ambient Air Quality Standard.</p> <p>Concentrations of fine particulate matter (PM_{2.5}) along the study area corridor would not exceed no-build concentrations and would be in conformity with the State Implementation Plan for achieving the 24-hour fine particulate matter (PM_{2.5}) standard.</p>
GP-38-10	<p>The fees associated with construction are required to comply with the San Joaquin Valley Air Pollution Control District Rule 9510. The San Joaquin Valley Air Pollution Control District assumes full control of these fees and uses them throughout the San Joaquin Air Basin to ensure that timely attainment of all air standards are met per Federal guidelines.</p>
GP-38-11	<p>The tentative construction start date is based on the approval of this environmental document, completion of final design plans and right-of-way acquisition. A detailed schedule of earth moving activities and construction will be developed during the construction stage of the project and when a construction contractor has been identified.</p>

Comment GP-39

GP-39

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Topics

Alternatives

why is alt "B" such a favored option when alt "C" is such a no brainer? granted, alt "C" would cost more in the beginning, in the long run it would save some 300 families from the trauma of losing their homes and many many more from having to live in a blighted area which westpark would eventually become if alt "B" goes through as planned. with the stroke of a pen alt "C" could be the plan of choice if caltrans would only push ii.

GP-39-1

Response to Comment GP-39

Comment Code	Response
GP-39-1	<p>Many state and Federal laws and regulations must be followed to abide by the National Environmental Policy Act and the California Environmental Quality Act. As discussed in Section 2.1.4 in Volume 1, Identification of a Preferred Alternative, three build alternatives, A, B, and C, were identified and evaluated at an equal level of detail in the technical studies and the final environmental document. All three alternatives meet the project purpose and need of providing route continuity for State Route 58.</p> <p>Alternatives A and C both directly affect Section 4(f) resources; therefore, an avoidance alternative must be considered. Alternative B avoids all Section 4(f) resources and is considered prudent and feasible. Even with design plan modifications to Alternatives A and C, it was not possible to completely avoid Section 4(f) resources. Alternative B would have no impacts on Section 4(f) resources; therefore, it remains the only prudent and feasible alternative. Please refer to Table B.3 in Appendix B of Volume 2, Section 4(f), for a breakdown of feasibility analysis for Section 4(f) resources.</p> <p>Alternative A requires the most property acquisitions and would produce the greatest number of displacements, totaling 356 residences and 127 businesses. Alternative C would require fewer residential displacements, but would displace 198 business. Although Alternative B may affect more housing displacements compared to Alternative C, it has fewer business displacements compared to the other two alternatives; however, Alternative B has more community impacts because the proposed alignment would bisect the Westpark neighborhood, changing travel patterns within the general area. Alternative C would concentrate most of its residential displacements in two environmental justice communities, with the largest concentration of single-family home displacements in the environmental justice community south of Saunders Park. Comparing the cost of each alternative, Alternative B is the least expensive at \$570 million. Alternative A is the most expensive at \$691 million, followed by Alternative C at \$665.5 million.</p> <p>Additionally, Alternative B has the least impact on jurisdictional waters compared to Alternatives A and C.</p> <p>Please refer to Section 2.1.3, Comparison of Alternatives (Volume 1), for more information about impacts for each build alternative.</p> <p>After comparing and weighing the benefits and impacts of Alternatives A, B, and C, some of which are summarized in Tables S.1 and 2.1 of Volume 1 of this final environmental document, Caltrans has identified Alternative B as the Preferred Alternative. Please see Section 2.1.4, Identification of a Preferred Alternative, in Volume 1 for more information on how the Preferred Alternative is selected.</p>

Comment GP-40

GP-40

Name: Bob Smith
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Topics

Project Design Modifications

I believe the project should make a bicycle connection between Easton Dr and Commerce Way in order to conform with Complete Streets Policy reduce green house gas and improve quality of life in Bakersfield. The connection would tie to a class 1 bicycle path and help complete a more family friendly bicycle network in the City of Bakersfield.

GP-40-1

Traffic

A more complete bicycle network will help reduce traffic congestion

GP-40-2

Air Quality

a more complete bicycle will improve air quality

GP-40-3

Quality of Life / Community Cohesion

The bicycle connection will tie east Bakersfield with all other parts of Bakersfield.

GP-40-4

Aesthetics/Landscaping

The left over parcels should be developed as green space in order to provide a public amenity through the neighborhood

GP-40-5

Response to Comment GP-40

Comment Code	Response
GP-40-1	Caltrans has decided to include a bicycle and pedestrian connection between California Avenue and Commerce Drive as part of Alternative B. This decision was made in response to public requests for a bicycle connection spanning over the Carrier Canal. This improvement would enhance bicycle and pedestrian connectivity and would result in minimal effects to the environment during construction.
GP-40-2	Your comment is acknowledged. It is the goal of the Centennial Corridor Project to improve the quality of life for the Bakersfield community, including reducing traffic.
GP-40-3	Your comment has been noted.
GP-40-4	Your comment is acknowledged.
GP-40-5	The city of Bakersfield will have the first right of refusal for remnant and undeveloped properties proposed as excess right-of-way. Direct sales of excess land to the city shall be for public uses per Caltrans Right-of-Way Manual Section 16.04.05.02. In addition, following construction of the freeway, Caltrans and the city will coordinate to identify possible park uses that could be developed in conjunction with other areas in which Caltrans will maintain easements to the Centennial Corridor freeway for maintenance and other responsibilities. Remnant and vacant parcels will be discussed between Caltrans and the city of Bakersfield during the final design phase when exact right-of-way information is available.

Comment GP-41

GP-41

Name: Leah Pineda

Address: 6200 Key West Drive

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Email: guitarplayer322@gmail.com

Topics

Traffic

I think this project will help reduce much of the traffic in our city.

GP-41-1

Response to Comment GP-41

Comment Code	Response
GP-41-1	Thank you for participating in the environmental process for the Centennial Corridor Project. Your acknowledgement about traffic improvement as a result of project implementation is noted.

Comment GP-42

GP-42

Name: Diane Hamlin

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ZIP: 93309

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Topics

Traffic

A continuity of traffic flow is vital to Bakersfield for it's ability to grow. Although this alternative does not make the most sense as far as traffic flow it seems to have the least impact on the community in the long-run. My heart goes out to the people who will be displaced. Thank you for this opportunity to have a say.

GP-42-1

Response to Comment GP-42

Comment Code	Response
GP-42-1	<p>Your acknowledgement about traffic improvement as a result of project implementation is noted.</p> <p>For the properties subject to relocation, Caltrans will follow the provisions listed in the Relocation Assistance Program and comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably.</p>

Comment GP-43

GP-43

Name: Brad Barbeau

Address: 1201 24th Street, B110-320

City: Bakersfield

State: CA

ZIP: 93301

Email: bbarbeau@commercialdevelopers.com

Submitted By: ,El Torito Building

Topics

Project Design Modifications

We lose access from Easton drive as a way to enter the property from the west. Is it possible to get an access point from Easton (under the freeway) to the El Torito parking lot? Can an opening be made in the wall and under the freeway for pedestrian and vehicle access? Also, could there be a left hand turn from California Avenue directly into the property? The height of the freeway blocks visibility looking at the property from the east. Is it possible to get a location for a pylon sign on the Easton Drive side of the freeway?

GP-43-1

Aesthetics/Landscaping

The walls, bridges and unoccupied property to the east of Easton drive create an attractive nuisance to the homeless.

GP-43-2

GP-43

Name: Brad Barbeau

Address: 1201 24th street, B110-320

City: Bakersfield

State: CA

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Email: bbarbeau@commercialdevelopers.com

Topics

Project Design Modifications

I am one of the owners of the El Torito building on California Avenue. There is a proposed drainage basin just north of the El Torito building in the present design. Please move that drainage basin further north away from El Torito. It should be located on the northern most portion of the excess property.

GP-43-3

Response to Comment GP-43

Comment Code	Response
GP-43-1	<p>The project design plans have yet to be finalized. At this stage of the project, limited design is available. Specific details, such as access points, could not be provided until the final design stage. If feasible, the project may include a direct access point to El Torito from Easton Drive. Additionally, a left-hand turn into the El Torito parking lot from California Avenue may be implemented if it is considered feasible and safe to construct. The request for a pylon sign outside of the property requires permission from the property owner of where the proposed sign is to be located. All proposed signs within the city of Bakersfield or Caltrans right-of-way are required to follow local ordinance or specifications and receive permission from these agencies.</p>
GP-43-2	<p>Your concern has been noted. It is highly speculative as to whether the construction of bridges, walls, and unoccupied property would attract transients to occupy an area. It is acknowledged that, like many cities across California, there are homeless and transient people in various locations in Bakersfield, including public places, such as downtown areas or within areas designated as a transportation corridor such as the Centennial Corridor Project. There is no way to restrict access by homeless and transient people to certain areas in Bakersfield. Unless a homeless or transient person is breaking the law or local ordinances, the Bakersfield Police Department cannot physically remove or restrict their access to public areas.</p> <p>To enhance safety and to minimize graffiti and vagrancy problems associated with vacant buildings, a strategy for handling the acquired properties would be developed to include the following options: (1) rent the homes and businesses on a month-to-month basis to keep them occupied as long as possible in advance of demolition; or (2) demolish each building as soon as feasible after acquisition. This latter option would result in vacant lots interspersed in business areas and neighborhoods. With either option, proper management of acquired property is a key consideration. All property acquisitions for the project would comply with the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. A summary of relocation benefits is also provided in Appendix D of the final environmental document, Volume 2.</p>
GP-43-3	<p>At this current stage of the project, minimal design has been prepared and project design may change during the next phase. If moving the drainage basin is feasible and would not result in additional environmental impacts, Caltrans may consider relocating the drainage basin farther away from the restaurant. The Centennial Corridor Project team would coordinate with affected businesses during the final design phase of the project to determine whether requests for specific design changes are feasible to implement.</p>

Comment GP-44

GP-44

Name: Bonnie Doyle

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Topics

Property Acquisition / Relocation

My question is: MELLO-ROOS TAX If I find a house in the area that has this tax, will I be subject to that tax? Am I subject to any increases in annual tax renewals, or interest charges due to this tax? Can my relocation package be implemented into this tax as my income will not increase? I am retired. I feel that this Mello-Roos tax is keeping me out of the neighborhood I have picked out. Is this a case of just because my income isn't what someone else can pay every year, and can increase, I am being discriminated against just for this.. I am paying for roads, schools, law enforcement, etc. I am a tax paying citizen. I can buy this house with my income as it stands. This tax is keeping me from having the home I have picked out?

GP-44-1

Response to Comment GP-44

Comment Code	Response
GP-44-1	<p>Mello-Roos taxes on new properties purchased by displaced real property owners are beyond the purview of this final environmental document.</p> <p>In most cases, if a Mello-Roos Community Facilities District exists, as approved by 2/3 of voters within the district, applicable Mello-Roos special taxes would be levied as part of the annual property tax bill for all properties located within the Community Facilities District. It is noted that special taxes and assessments, such as Mello-Roos taxes, are secured by a lien against the specific property. Until the bonds issued by the district are paid off, whoever owns the property must pay for this debt, because the tax is already attached to it. In the case of Mello-Roos districts, sellers are now legally required to provide the buyer with a Notice of Special Tax. Specifically, California Civil Code Section 1102.6 requires sellers to make a good faith effort to give property buyers a "Notice of Special Tax" if the property is in a Mello-Roos district. As a result, it is anticipated that this would be beneficial for buyers when considering a home's tax burden and determining the total cost of the home.</p> <p>It is noted that Section 2(d) of Article XIII-A of the California Constitution and Section 68, Rule 462.5 of the Revenue and Taxation Code generally provide that property tax relief shall be granted to any real property owner who acquires comparable replacement property after having been displaced by governmental acquisition or eminent domain proceedings.</p> <p>As discussed in Section 3.1.4.2, Relocation and Property Acquisition, per Standard Condition SC-R-1, Caltrans, in coordination with the city of Bakersfield, shall implement all property acquisition and relocation activities in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894). The Uniform Act mandates that certain relocation services and payments be made available to eligible residents, businesses, and nonprofit organizations displaced by the project. The Uniform Act provides uniform and equitable treatment by Federal or Federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies. See Appendix D in Volume 2 for more information on Caltrans' Relocation Assistance Program. Additionally, Mitigation Measure R-1 includes measures that may be considered by Caltrans for incorporation into the relocation plan to minimize impacts to displaced businesses and residents. Right-of-way impacts are discussed in more detail in Section 3.1.4.2, Relocation and Property Acquisition, in Volume 1 of this final environmental document.</p> <p>Right-of-way acquisition will not be finalized until the final design phase. All potential acquisitions are subject to change during final design. Caltrans offers brochures explaining the acquisition process for renters, property owners, and businesses. The Right-of-Way Manual can be found on the Caltrans web site: http://www.dot.ca.gov/hq/row/.</p>

Comment GP-45

GP-45

Name: Cindy Parra

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Topics

Quality of Life / Community Cohesion

It is important that a connection be made to the Kern River Bike Path across the Carrier Canal from north to south along the corridor alignment. This connection will open up neighborhoods and businesses to the south that would have to travel a further distance along busy arterials. A recommended bicycle friendly route already exists through the Garnsey neighborhood and making the connection from there across the Carrier Canal to give access to the bike path will help promote a better quality of life.

GP-45-1

Response to Comment GP-45

Comment Code	Response
GP-45-1	<p>Your comment has been noted. Caltrans recognizes the positive effects of nonmotorized transportation, such as bicycles, on the environment and the community. By providing a bicycle connection within the Centennial Corridor Project area, it is possible that an improved bicycle connection to an existing Class I and Class II bicycle facility could increase bicycle usage.</p> <p>Caltrans has decided to include a bicycle and pedestrian connection between California Avenue and Commerce Drive as part of the project. This decision was made in response to public requests for a bicycle connection spanning over the Carrier Canal. This improvement would enhance bicycle and pedestrian connectivity and would result in minimal effects to the environment during construction. The bicycle and pedestrian connection will provide access to the Garnsey neighborhood about a half mile north with an access point located on Easton Drive and California Avenue.</p>

Comment GP-46

GP-46

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Topics

Project Design Modifications

Cul de sac at La Mirada

GP-46-1

Other

Traffic west of city cannot be justified by the expense. Please explain how 490 total vehicles (Kern Cog Figure, 2011) at 58 and Tracy Ave justify this type of expense.

GP-46-2

GP-46

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Topics

Other

How much money is available from Thomas funds for this project? How much is design going to cost? Acquisition? Construction? Please, break down into three categories. This should be total values. Total Tomas funds.

GP-46-3

Response to Comment GP-46

Comment Code	Response
GP-46-1	<p>Your support for the La Mirada cul-de-sac option has been noted. As described in the final environmental document (Volume 1), the Preferred Alternative B includes an overcrossing at La Mirada Drive to help traffic circulation and maintain connectivity to other neighborhoods across the proposed Alternative B alignment.</p> <p>An overcrossing at La Miranda Drive would help maintain circulation between neighborhoods that would otherwise be cut off. Caltrans has analyzed the benefits associated with minimizing impacts on the remaining neighborhood, costs, and internal circulation needs.</p>
GP-46-2	<p>The daily traffic volume on State Route 58 immediately to the east of Tracy Avenue is approximately 7,000 vehicles per day, of which approximately 850 vehicles are heavy trucks having five or more axles. The Centennial Corridor Project addresses many needs, one of which is to accommodate traffic volumes traveling to and from Interstate 5. The design year (2038) forecast of traffic on the Centennial Corridor, to the west of State Route 99, is 121,375 vehicles per weekday, for Alternative B. Future traffic volumes indicate the need to widen an east-west roadway to connect to Interstate 5.</p> <p>The Centennial Corridor Project construction widening limits terminate at Heath Road and would provide intersection improvements only at Stockdale Highway/State Route 43 (known locally as Enos Lane). This project will not widen Stockdale Highway west of Allen Road to connect to Interstate 5.</p> <p>The timing for construction of Stockdale Highway (Segment 3) is unknown, but it would not occur until there is sufficient funding and greater traffic demand on those portions of the highway. If the need to widen Stockdale Highway at this location in the future is identified, then a separate project would be developed.</p>
GP-46-3	<p>As discussed in Chapter 2 of the final environmental document, the escalated 2016/17 fiscal year cost of Alternative B is estimated at \$570 million, with \$390 million for construction and support costs (including final design), and \$180 million for right-of-way costs. Furthermore, in terms of cost-benefit analysis and savings in travel time over the 20-year (2018-2038) study period for Alternative B compared to the No Build Alternative, the resulting savings is estimated at approximately \$794 million.</p> <p>Funding for the project comes from multiple sources, including the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Federal legislation signed into law on August 10, 2005. The following funding sources have been identified:</p> <ul style="list-style-type: none"> • Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Section 1301 = \$90.44 million • Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Section 1302 = \$289.2 million • Other Federal sources = \$12.97 million • State = \$53 million • Kern County bond = \$57.5 million • City of Bakersfield = \$206.89 million

Comment GP-47

GP-47

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Topics

Project Design Modifications

Please Re-Think an Off-Ramp at Stockdale Hwy. The traffic at Ming is already a mess. Real Rd from both directions from California Ave or Ming will Not be able to manage the New Increases in Traffic. The many business as well as a main entry to CSUB will be Highly Impacted.Plus, the Ramp is already there and can be modified as a small % o overall cost. GP-47-1

Safety

Keep Stockdale off-ramp. Real Rd will become a dangerous road. GP-47-2

Aesthetics/Landscaping

Do it Right, do it Fair, compared to other California Cities. Our Freeways are a Reflection of our City, as in Most other cities. Minimize the Plain Concrete center dividers, add stamped & Green to the mix to Represent our Valley. Think Valencia,Paso Robles,just as Hot, or The NEW 210 Frwy SECTION,Ivy on walls, low water maintenance plants in the ground. Help change our Perception. Painted Chain Link (Blk or Grn) (I'm thinking 99,and east 58) The New freeway is very nice, but for center dividers, Grow some Ivy! GP-47-3

Response to Comment GP-47

Comment Code	Response
GP-47-1	<p>Your concern regarding the loss of direct freeway access to Stockdale Highway via the southbound State Route 99 Stockdale Highway off-ramp is acknowledged. Based on traffic studies, it has been found that the overall reduction in traffic congestion brought about by the Centennial Corridor Project will enhance rather than impair access throughout the project study area, and it will result in better overall design.</p> <p>The existing Stockdale Highway off-ramp is a partial interchange providing access to State Route 99 in only the southbound direction. This ramp does not meet Caltrans acceptable design standards. Caltrans' Highway Design Manual does not allow for local street ramps located within a mile of a freeway-to-freeway interchange (Caltrans' Highway Design Manual, Section 502.2). These ramps have proven to be a safety concern in past freeway designs because of the potential for wrong-way movements. The existing Wible Road on-/off-ramps to northbound State Route 99 and the Real Road on-ramp to southbound State Route 99 will also be closed due to the changed geometry of the highway improvements that are part of the proposed project. These ramps present undesirable safety issues resulting from insufficient acceleration and deceleration lengths, tight curve radius on the on- and off-ramps, inadequate sight distances around the curves, and insufficient storage length for future on-ramp metering. Depending on the destination, the changes in travel patterns due to closure of these ramps would increase travel distances, but result in only slight increases in travel time. Studies concluded this increase in travel time would be less than significant, taking into account the overall reductions in regional traffic congestion brought about by the project.</p> <p>Regarding access to Cal State University, Bakersfield, given the existence of the Westside Parkway, it is anticipated that residents would choose a different route to the university other than exiting State Route 99 to Stockdale Highway. In approaching from anywhere east of State Route 99, motorists could stay on State Route 58/Centennial Connector/Westside Parkway and exit at Coffee Road or Calloway Drive. West of State Route 99, motorists could drive to Coffee Road or Calloway Drive along an east-west arterial, and then use Coffee Road or Calloway Drive to get to the university, avoiding State Route 99 altogether. From the north, motorists could drive south on State Route 99, exit at Rosedale Highway, drive to Mohawk Street, and cut over to Coffee Road or Calloway Drive using the Westside Parkway. Along State Route 178, motorists could take State Route 178 to Downtown Bakersfield, use 24th Street to Oak Street, take Oak Street to Truxtun Avenue, and take the Truxtun Avenue extension to the Westside Parkway, exiting at Coffee Road or Calloway Drive.</p>
GP-47-2	<p>The design of the project would improve operations and enhance safety for all modes of traffic. Sidewalks and crosswalks would also be provided at all intersections to facilitate the movement of nonmotorized and pedestrian traffic in the project area. Accordingly, the project would result in safety benefits associated with considerably less congestion on local streets and State Route 99.</p> <p>It is noted Real Road is lightly used except when it runs into the bottleneck at Stockdale Highway. The Centennial Corridor Traffic Study examined the intersection at Stockdale Highway and Real Road, which was experiencing level of service F in 2008. The traffic study examines existing, opening year (2018), and design year (2038) traffic conditions. By 2038, traffic volumes passing through this intersection (identified as intersection #51 in the Traffic Study report) under "No Build" conditions will increase to 11,260 vehicles for the two peak hours, AM and PM combined, an increase of 56 percent. Under the No Build Alternative, the intersection would result in further safety problems due to the increase in congestion.</p> <p>In order to address this increase in traffic, Stockdale Highway will be widened to six through lanes, compared to the four through lanes that currently exist at Stockdale Highway's intersection with Real Road. The widening will allow for better traffic flow</p>

Comment Code	Response
	<p>and a decrease in congestion as the build conditions will attract vehicles away from the surface arterial streets. In conjunction with the elimination of the Stockdale off-ramp, traffic volumes will be less on Stockdale Highway and Real Road compared with the no-build conditions; the reduction in congestion would enhance safety for all motorists. The average delay per vehicle data can be found in the Executive Summary on page 27 and in the main body of the Traffic Study technical report on page 45 (Table 2-5) for existing, page 189 (Table 4-14) for future No Build, and page 243 (Table 4-28) for Build Alternative B. The intersection turning movement volumes passing through intersection #51 can be found in Figure 2-14 on page 41. Year 2038 peak-hour intersection traffic volumes for the No Build Alternative are reported on page 95 in Figure 3-8 and in Figure 3-18 on page 123 for Alternative B.</p>
GP-47-3	<p>The overall Centennial Corridor aesthetic design theme is intended to be compatible with surrounding neighborhoods and in keeping with the overall Westside Parkway design theme, to the extent feasible, including landscaping, sound walls, bridge treatments, and lighting fixtures. By designing aesthetic treatments to be consistent with the Westside Parkway, this would provide a cohesive visual character to the highway corridor.</p> <p>Furthermore, landscaping would be implemented upon completion of construction. Plant material would consist of native, drought-tolerant, and self-sustaining species. Any proposed plant material shall be approved by the District Landscape Architect and would not include any invasive species. With similar aesthetic treatment, no visual contrast along the corridor would be seen.</p>

Comment GP-48

GP-48

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Topics

Project Design Modifications

Please provide a connection for bicyclists between Easton Drive and Commerce Way across the canal that cuts in between the business areas that these roads service. A bicycle connection here will provide a safe, family friendly connection for residents along the south side of California Avenue to the Kern River Parkway Trail. Also the connection will provide a quality route for those who work in the areas surrounding Easton Drive and are interested but concerned about biking to work to bike to their workplace from the Kern River Parkway Trail with a safe and efficient route.

GP-48-1

Traffic

By filling in this spot gap in the bicycle network you will improve connectivity for bicyclists in the area. This will in turn generate more bicycle trips being made to/from the area and reduce vehicle trips.

GP-48-2

Air Quality

By increasing bike trips and reducing automobile trips you will reduce air pollution.

GP-48-3

Quality of Life / Community Cohesion

Biking is a great way to improve a community's quality of life. Additionally reducing vehicle traffic will reduce the pollution in our air.

GP-48-4

Safety

By building this connection you will create a safer route for local bicyclists to access/leave the area.

GP-48-5

Response to Comment GP-48

Comment Code	Response
GP-48-1	<p>Caltrans recognizes the positive effects of nonmotorized transportation, such as bicycles, on the environment. By providing a bicycle connection within the Centennial Corridor Project area, it is possible that an improved bicycle connection to an existing Class I and Class II bicycle facility could increase bicycle usage.</p> <p>Caltrans has decided to include a bicycle and pedestrian connection between California Avenue and Commerce Drive as part of the project. This decision was made in response to public requests for a bicycle connection spanning over the Carrier Canal. This improvement would enhance bicycle and pedestrian connectivity and would result in minimal effects to the environment during construction.</p>
GP-48-2	Your comment has been noted. It is the goal of the Centennial Corridor Project to improve quality of life for the Bakersfield community, including reducing traffic.
GP-48-3	Your comment is acknowledged.
GP-48-4	Your comment has been noted.
GP-48-5	Your comment is acknowledged. Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project.

Comment GP-49

GP-49

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Topics

Project Design Modifications

While I am in support of Centennial Corridor project and the multi-agency effort to alleviate traffic, decrease commute times, and improve air quality in the southern San Joaquin valley, I question the overall design of the project as it relates to connectivity with existing freeways (California Route 99). If the goal of Centennial Corridor project is to improve metro Bakersfield connectivity and move vehicle traffic off surface streets and to new highway projects, why is there no plans to fully connect the major North/South freeway with the new East/West freeway? Based on current designs, to transition to West-bound Centennial Corridor from South-bound 99, motorist would need to exit at Rosedale Hwy...travel several miles on heavily congested road...to Mohawk, then reconnect with westside parkway. By my count there are 6 traffic signals and one railroad crossing along this route. Same travel issue with East-bound travel to North-bound 99? A true 'cloverleaf' interchange seems to be missing from the design. Hwy 99, the major North/South route through metro Bakersfield, and the new project connecting the westside parkway with 58 (a major East/West route), allowing multi-directional transition of traffic from all directions seems logical. Without connectors, motorist would exit onto surface streets then reenter the desired freeways at different point. This seems to be counter to what TRIP and Caltrans envisioned in its collective goal to improve metro-Bakersfield mobility. Examples include 99/80B/50 in Sacramento and 168/41/180 in Fresno. Even 99 south allows for transition to 180 west in Fresno (180 only spans metro-Fresno whereas 58 is a vital east/west inter-state route via I-40). To have two major California freeway routes intersect but not allowing for directional transitions seems to defeat the purpose of building a new freeway. If a traveler has to exit one highway, travel on surface streets to reenter a second freeway when the two cross paths, why build at all?

GP-49-1

Response to Comment GP-49

Comment Code	Response
GP-49-1	<p>A southbound State Route 99 to westbound State Route 58 direct connector will not be constructed as part of the Centennial Corridor Project; none of the build alternatives analyzed provide direct connector ramps from southbound State Route 99 to westbound State Route 58 because of the low southbound-to-westbound traffic volumes for existing and projected future traffic forecasts.</p> <p>A deficiency in traffic operations for either current or future conditions is required to substantiate the need for a southbound State Route 99 to westbound State Route 58 direct connector. If future traffic volumes necessitate construction of this direct connector, a separate project that would allow for the integration of a southbound State Route 99 to westbound State Route 58 direct connector would be initiated by Caltrans.</p> <p>Caltrans acknowledges commuters along southbound State Route 99 would have to use local surface streets to connect to westbound State Route 58. Access to westbound State Route 58 from State Route 99 is provided on the State Route 99 interchange with existing Rosedale Highway, connecting to the Westside Parkway via Mohawk Street. Caltrans is improving the State Route 99/Rosedale Highway interchange by providing additional turn lanes at the southbound off-ramp, which will enhance the turning capacity from the current one left-turn plus one shared left- and right-turn lane configuration to two left-turn lanes and two free-right-turn lanes. As part of a separate project, Caltrans will widen Rosedale Highway from two lanes in each direction to three lanes in each direction from west of Gibson Street to Mohawk Street and beyond. Rosedale Highway will be constructed with or without the Centennial Corridor Project.</p> <p>Although the project is not providing a southbound State Route 99 to westbound State Route 58 direct connector because of the low traffic demand for this direction of travel, the Centennial Corridor Project meets the purpose and need by providing route continuity and associated traffic congestion relief along State Route 58 within metropolitan Bakersfield and Kern County from the existing State Route 58 (East) (at Cottonwood Road) to Interstate 5.</p> <p>An eastbound State Route 58 to northbound State Route 99 connector is also not included as a project feature due to the low traffic volumes for the eastbound to northbound movement. It is anticipated that vehicles traveling east on State Route 58 would take the Mohawk Street exit and travel via Rosedale Highway to the Rosedale Highway/State Route 99 interchange for northbound travel. If traffic demand necessitates construction of this connector, Caltrans will initiate a future stand alone project. The project would be designed to allow for the eastbound-to-northbound connector to be added in the future.</p>

Comment GP-50

GP-50

Thank you for your comment on the Centennial Corridor Project. Your comment has been received.

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ZIP:

Email:

Topics

Noise

	GP-50-1	GP-50-2	GP-50-3
What will the landscape look like ?	West side parkway is ugly	How many trees will be planted and what type	

Response to Comment GP-50

Comment Code	Response
GP-50-1	The overall Centennial Corridor aesthetic design theme shall be compatible with surrounding neighborhoods and in keeping with the overall Westside Parkway design theme, to the extent feasible, including landscaping, sound walls, bridge treatments, and lighting fixtures. By designing aesthetic treatments to be consistent with the Westside Parkway, a cohesive visual character will be created.
GP-50-2	Your comment has been noted.
GP-50-3	<p>An exact number of trees to be planted could not be quantified because of the limited design plans available during the environmental phase of the project. The number and type of trees to be planted depend on the mitigation requirements of the project and the landscape plan that would be developed during the final design phase of the project.</p> <p>However, the Centennial Corridor Project will fund a \$200,000 grant to be provided to a non-profit organization, who will administer the voluntary tree planting program in order to plant as many trees as possible within 1,500 feet of the project until funds have been exhausted. The voluntary tree-planting program would allow property owners to have this air quality mitigation on their property if they are willing to take responsibility for watering and care of the tree(s). The estimate of \$200,000 is based on the commercial-nursery cost of providing one 24-inch boxed tree for each property within 500 feet of the freeway.</p> <p>Trees would be planted within private properties on a voluntary basis, with the highest priority of tree plantings to environmental justice communities within 1,000 feet of the Preferred Alternative B alignment, and secondly, properties within 500 feet of each side of the Alternative B alignment. If trees are available after the primary and secondary targeted areas, property owners within 1,500 feet of each side of the alignment would be given an opportunity for tree plantings. If trees are still available, they may be planted at other locations in consultation with and approved by the city of Bakersfield.</p> <p>To construct the project, it will be necessary to remove trees. Caltrans intends to preserve as many mature trees as feasible. A tree survey will be completed during the final design phase of the project that would identify locations of existing mature trees (larger than 20 feet high). Caltrans would identify trees within the project area that could be preserved and provide fencing in the design plans to protect them. If a tree could not be preserved, the landscape plan will incorporate a tree replacement plan with a replacement ratio of 1:1—for every tree removed, a tree will be planted. Mature trees that are to be removed shall be replaced using 20-inch box trees.</p> <p>When the number of trees to be removed has been identified, an exact number and type of plantings could be provided, which will be included in the landscape plans during final design.</p>

Comment GP-51

GP-51

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Topics

Project Design Modifications

I used to think this was needed until I heard that the design eliminates all access points to all freeways at the 99/58 interchange. Residents in 2 mile radius area will have to go miles out of their way on surface streets to access a freeway that they have used to have easy access to. THIS IS NOT PROGRESS! Any design should IMPROVE access and traffic flow, not INCREASE CONGESTION! (Don't tell me it will improve traffic flow) Furthermore, it is my understanding there will be no access from 99 to 58/58 to 99 which is insane. This looks to be a colossal blunder that will leave everyone wishing they had the old freeway system back, and the bulldozing of homes and businesses for this inept and grossly deficient design is unconscionable. NO BUILD OR SEND IT BACK TO THE DRAWING BOARD!

GP-51-1

Traffic

Design will increase commuter and cross town traffic on surface streets being used to drive out of way to access freeway.

GP-51-2

Noise

Residents near bulldozed homes will have to deal with noise from a freeway that they don't even have access to

GP-51-3

Air Quality

Can you imagine living between these freeways in what is already one of the most polluted cities in the nation?

GP-51-4

Quality of Life / Community Cohesion

Once again, a neighborhood gets split and deals with the negative impact of a freeway that they don't even get access to. At least if they had access, they could make efficient, smooth commutes and trips across town.

GP-51-5

Property Acquisition / Relocation

GP-51-6

GP-51

This is never pleasant, but if sacrifices are made with people forced from their homes, it should be worthwhile and not leave congestion, noise and gridlock for the people left behind.

GP-51-6

Property Values

This will decrease property values for everyone within a 1.5 mile radius of ground zero of this project. I don't care what kind of "studies" are done, when people see this inept design, it will decrease demand.

GP-51-7

Alternatives

I don't think valid alternatives were truly explored. Too many topics to list here, but there are some valid alternative locations that were not considered. For example, add a lane to existing 99 and leaving interchange at 99/58 intact with a reconfiguration of California Avenue exit to include a viaduct over or under the railroad would have been a better alternative. Spared the park, spared the neighborhood, preserved and enhanced access, improved traffic flow...

GP-51-8

Response to Comment GP-51

Comment Code	Response
GP-51-1	<p>Your support for the No Build Alternative is acknowledged. The design of the Centennial Corridor will not eliminate all access points to State Route 99 and State Route 58. The Centennial Corridor Project will remove the State Route 58 connector to southbound State Route 99 and eastbound State Route 58 at Real Road. However, access to State Route 99 and State Route 58 will remain the same to the north, east, and south of the interchange. In addition, the Centennial Corridor Project is proposing to construct connectors linking State Route 58 and State Route 99 for the following movements: westbound State Route 58 to northbound State Route 99, southbound State Route 99 to eastbound State Route 58, northbound State Route 99 to eastbound State Route 58 and eastbound State Route 58 to southbound State Route 99. The Centennial Corridor Project would remove a section of State Route 58 from State Route 99, so State Route 58 traffic would be rerouted to help relieve congestion on State Route 99. However, the project is not providing a southbound State Route 99 to westbound State Route 58 or an eastbound State Route 58 to northbound State Route 99 connector for the reasons described below.</p> <p>A southbound State Route 99 to westbound State Route 58 direct connector will not be constructed as part of the Centennial Corridor Project; all of the build alternatives analyzed do not provide direct connector ramps from southbound State Route 99 to westbound State Route 58 because of the low southbound-to-westbound traffic volumes for existing and projected future traffic forecasts. A deficiency in traffic operations for either current or future conditions is required to substantiate the need for a southbound State Route 99 to westbound State Route 58 direct connector. However, preliminary plans for all of the alternatives allow for the integration of a southbound State Route 99 to westbound State Route 58 direct connector ramp to be constructed at a future date when the need for this direct connector has been identified. If future traffic volumes necessitate construction of this direct connector, a separate project would be initiated by Caltrans.</p> <p>Caltrans acknowledges commuters along southbound State Route 99 would have to use local surface streets to connect to westbound State Route 58. Access to westbound State Route 58 from State Route 99 is provided on the State Route 99 interchange with existing Rosedale Highway, connecting to the Westside Parkway via Mohawk Street. Caltrans is improving the State Route 99/Rosedale Highway interchange by providing additional turn lanes at the southbound off-ramp, which will enhance the turning capacity from the current one left-turn plus one shared left- and right-turn lane configuration to two left-turn lanes and two free-right-turn lanes. As part of a separate project, Rosedale Highway will be widened from two lanes in each direction to three lanes in each direction from west of Gibson Street to Mohawk Street and beyond. Rosedale Highway will be constructed with or without the Centennial Corridor Project.</p> <p>Although the project is not providing a southbound State Route 99 to westbound State Route 58 direct connector because of the low traffic demand for this direction of travel, the Centennial Corridor Project meets the purpose and need of the project by providing route continuity and associated traffic congestion relief along State Route 58 within metropolitan Bakersfield and Kern County from the existing State Route 58 (East) (at Cottonwood Road) to Interstate 5.</p> <p>An eastbound State Route 58 to northbound State Route 99 connector is also not included as a project feature due to the low traffic volumes for the eastbound to northbound movement. It is anticipated that vehicles traveling east on State Route 58 would take the Mohawk Street exit and travel via Rosedale Highway to the Rosedale Highway/State Route 99 interchange for northbound travel. If traffic demand necessitates construction of this connector, Caltrans will initiate a future stand alone project. The project would be designed to allow for the eastbound-to-northbound connector to be added in the future.</p>

Comment Code	Response
GP-51-2	<p>As discussed in Section 3.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, the traffic study showed the build alternatives would provide better traffic flow for all vehicles due to direct route continuity compared to both the existing condition and the No Build Alternative in the future years. Furthermore, the additional capacity provided by the build alternatives compared to the No Build Alternative would also help reduce congestion on adjacent local roadways because traffic is expected to shift to the freeway.</p>
GP-51-3	<p>The potential short- and long-term noise effects of the project and measures to address those effects are detailed in Section 3.2.7, Noise, of the final environmental document (Volume 1). Results of the traffic noise analysis for each build alternative indicate traffic noise would generally increase as a result of the build alternatives. Sound walls are proposed to reduce the traffic noise at the residential areas adjacent to the freeway. No traffic noise increase is anticipated at 226 Cypress Street, due to the distance to State Route 99 and the new portion of the roadway.</p>
GP-51-4	<p>The Air Quality Study Report conducted for this project concludes that air quality impacts would be less than significant. There will be minimization measures implemented in this project to ensure adequate air quality levels during project construction and after project completion. Please refer to Section 3.2.6, Air Quality, of the final environmental document (Volume 1) for information on specific mitigation techniques and healthy air quality levels.</p> <p><i>Air Quality Effects during Construction</i></p> <p>It is acknowledged that construction of the project has the potential to create air quality impacts through the use of heavy-duty construction equipment. Fugitive dust emissions would result from earthwork and onsite construction activities. Reductions in fugitive dust can be achieved by onsite mitigation measures. Compliance with the standard conditions SC-CI-20 through SC-CI-22 listed under Avoidance, Minimization, and Mitigation Measures – Air Quality, Standard Conditions (refer to Section 3.6, Construction Impacts), would reduce construction emissions. Some of these measures to control dust include using water or chemical stabilizer/suppressant, covering disturbed areas with tarps, and limiting speeds in unpaved areas. Air emissions associated with construction activity would be temporary and would cease to occur after project construction is completed.</p> <p><i>Permanent Air Quality Effects</i></p> <p>The air quality study prepared for the Centennial Corridor Project indicates that potential air quality impacts were found to be less than significant and that the project would improve regional air quality due to reduction in congestion on local roadways and vehicle idling. Improvements to air quality are also attributed to the improved pollution emission performance of a modernizing fleet of all vehicles, especially heavy diesel trucks, as a result of Federal and State fuel content and engine emissions rules. In addition, the results of the air quality analysis indicate that the Centennial Corridor Project would be within regional and Federal air quality standards and would not cause or contribute to a violation of any air quality standards. To further minimize air quality pollutants within the general area of the project, Caltrans has entered into a Voluntary Emission Reduction Agreement with the San Joaquin Valley Air Pollution Control District. Through this agreement, targeted air quality improvements will be implemented within the general area along the Preferred Alternative B alignment. More detailed information on air quality analysis can be found in Section 3.2.6, Air Quality. For more information on the Voluntary Emission Reduction Agreement, please see Appendix L, Volume 2 of this final environmental document.</p>
GP-51-5	<p>It is acknowledged substantial neighborhood disruption would occur as a result of implementing Alternative B, including business and residential displacements; permanent street closures; higher exposure to vehicle noise; and division of the existing Westpark neighborhood. Between Ford Avenue and California Avenue, the alignment would be generally depressed, with overcrossings proposed at</p>

Comment Code	Response
	<p>Marella Way and La Mirada Drive to help with local traffic circulation and provide access across the proposed freeway from areas formerly served by other nearby streets. In addition, Marella Way would be designated as a bikeway to replace an existing bikeway on Montclair Street that would be closed by the project. An undercrossing at Ford Avenue was also considered, and Caltrans has decided to implement the crossing. The Ford Avenue undercrossing would maintain the connection of Ford Avenue between Stine Road and McDonald Way.</p> <p>Changes to several local residential streets would be required as part of construction of the new freeway, resulting in street closures; however, local access and circulation would be maintained for residents adjacent to the Alternative B alignment. Within a 2-mile area of the Westpark neighborhood, access to the freeway is provided at three locations: California Avenue, Mohawk Street, and Ming Avenue.</p>
GP-51-6	<p>Based on the preliminary design, right-of-way and construction easements required to build the project would necessitate partial and full acquisitions of many parcels. At times, the property acquisition process would result in some properties being acquired, while neighboring properties remain in place. Alternative B would fully acquire 293 properties and partially acquire 129 properties. Of these, 215 of the full acquisitions would be residential parcels, and 34 of the partial acquisitions would be residential parcels.</p> <p>Please refer to Response to Comments GP-51-2 and GP-51-3 for discussions on congestion and noise.</p> <p>As discussed in Section 3.1.4.2, Relocation and Property Acquisition, per Standard Condition SC-R-1, Caltrans, in coordination with the city of Bakersfield, shall implement all property acquisition and relocation activities in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894). The Uniform Act mandates that certain relocation services and payments be made available to eligible residents, businesses, and nonprofit organizations displaced by the project. The Uniform Act provides uniform and equitable treatment by Federal or Federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies. See Appendix D in Volume 2 for more information on Caltrans' Relocation Assistance Program. Additionally, Mitigation Measure R-1 (Section 3.1.4.2) includes measures that may be considered by Caltrans for incorporation into the relocation plan to minimize impacts to displaced businesses and residences. Accordingly, acquisitions would be conducted as necessary to build the approved project, and displaced residents would be provided just compensation in accordance with the Uniform Act.</p> <p>Right-of-way acquisition will not be finalized until the final design phase. All potential acquisitions are subject to change during final design. Caltrans offers brochures that explain the acquisition process for renters, property owners, and businesses. The Right-of-Way Manual can be found on the Caltrans web site: http://www.dot.ca.gov/hq/row/.</p>
GP-51-7	<p>It has been expressed in some of the comments received from the public that the project would result in decreased property values due to temporary construction impacts, permanent construction impacts, and property acquisitions. The final environmental document does not specifically discuss property values as part of the analysis. Real estate market prices are mainly based on comparative sales in the area. Many factors contribute to market values, including location, neighborhood, current real estate sales in the area, school system, crime, taxes, government services, parks/recreation, and features of the home. The Centennial Corridor Project may or may not have an effect on the property values.</p> <p>Past research using case studies on the effects of introducing new highway facilities near residential properties indicates that over the duration of a longer time period, property values will rise after an initial period of downward movement.</p>

GP-51-8	<p>As part of the initial scoping process for the Centennial Corridor Project, Caltrans considered a wide range of alternatives. Six build alternatives were developed by Caltrans and introduced at a public information meeting in March 2008. In addition, alternatives suggested by the public and alternatives from previous studies (the <i>Bakersfield Systems Study</i> [2002] and the <i>Final Route 58 Route Adoption Project, A Tier I Environmental Impact Statement/Environmental Impact Report</i> [2001]) were also evaluated as part of the initial screening. Even though the earlier studies rejected some of these alternatives, Caltrans determined they should be subject to the initial screening criteria as potential alternatives for the Centennial Corridor Project. Nineteen (19) alternatives were reviewed as part of the initial screening process. Eighteen (18) of these alternatives proposed construction of new roadway alignments (see Figure 2-7 provided in Volume 2), and 1 alternative proposed the Transportation Systems Management/Transportation Demand Management/Transit Alternative (Alternative M).</p> <p>The initial screening process done in 2008 determined that Alternatives A, B, C, and D, the No Build Alternative, and Alternative M warranted further study. These alternatives all received further analysis and additional screening.</p> <p>If an alternative does not achieve the intended purpose established for the project, it does not make sense to continue spending resources evaluating it, so it is eliminated from further consideration. Another factor in screening alternatives was the cost. An alternative was eliminated if the cost substantially exceeded the available funding. Alternatives D and M were eliminated after further screening because they did not meet the intended purpose and exceeded the cost.</p> <p>As discussed in Section 2.1.4, Identification of a Preferred Alternative, as part of the screening process, three build alternatives, A, B, and C, were identified and evaluated at an equal level of detail in the technical studies and the final environmental document. All three alternatives meet the project purpose and need of providing route continuity for State Route 58.</p> <p>Section 4(f) evaluations for each of the build alternatives were critical for determining the Preferred Alternative, among other things. Section 4(f) requires consideration of impacts on parkland and historic properties. Alternative B is the feasible and prudent alternative because it avoids impacts to Section 4(f) resources. Alternative A would impact the Kern River Parkway and the Rancho Vista Historic District, while Alternative C would have direct impacts to Saunders Park, a Section 4(f) property in an environmental justice community. Even with design modifications to Alternatives A and C, Section 4(f) resources could not be avoided; therefore, they could not be determined to be the Preferred Alternative. Alternative B has no impacts to Section 4(f) resources. Please refer to Table B.3 in Appendix B of Volume 2, Section 4(f), for a breakdown of feasibility analysis.</p> <p>In addition to having no impacts to Section 4(f) resources, Alternative B has the least impact on jurisdictional waters. The cost of Alternative B is also the lowest, costing about \$100 million less than the other two build alternatives.</p> <p>Therefore, after comparing and weighing the benefits and impacts of Alternatives A, B, and C, some of which are summarized in Tables S.1 and 2.1 of Volume 1 this final environmental document, Caltrans has identified Alternative B as the Preferred Alternative. For more information about the selection process, please see Section 2.1.4, Identification of Preferred Alternative, in Volume 1.</p> <p>The alternative suggested is very similar to Alternative C and Section 4(f) Avoidance Alternatives: East Avoidance Realignment and Construct State Route-58 in Median of State Route 99 (see Appendix B, Section 4(f) Evaluation, Section 6.0). These three alternatives propose to add additional lanes adjacent to State Route 99 and provide a viaduct over California Avenue. Alternative C proposes additional lanes to the west of State Route 99, the East Avoidance Realignment proposes to construct lanes east of State Route 99 and the Construct State Route 58 in the Median of State Route 99 proposed to build within State Route 99.</p> <p>The alternative proposed by the commenter does not consider Caltrans' design requirements for improving an existing state route. The commenter's proposed alternative to "add a lane to existing 99 and leaving interchange at 99/58 intact" does not meet the intended purpose established for the project to provide a continuous</p>
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Comment Code	Response
	<p>route along State Route 58 because it would continue as a shared route with State Route 99 between Rosedale Highway and the State Route 58/State Route 99 interchange for both north and south travelling vehicles.</p> <p>The impacts of these three similar alternatives were studied and documented. The two Section 4(f) Avoidance Alternatives were determined to be not prudent (see Table B.3 Summary of Avoidance Alternatives Analysis) because of the extraordinary additional costs; severe social, economic or environmental impacts of extraordinary magnitude; and not allowing for future expansion of the state route facility.</p>

Comment GP-52

GP-52

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Topics

Project Design Modifications

I would prefer the Corridor to be routed outside of town if a "No Build" option isn't approved. However, if it has to be built I would like to see more on/off ramps so it can be used by local traffic.....I'm very concerned about the traffic routing on La Mirada and Marella Way as well as how the residents on Kentfield Drive and Hillsbrough will drive in and out of the area since there will only be one way in and one way out (Fallbrook will be closed on one end). The park will be a real problem for us left behind (will address under Parks below).

GP-52-1

Traffic

I have lived in this neighborhood for over 35 years. I can not see how Alt B will help with the local traffic - it will only make it worse since so many residents 'cut through' Westpark to avoid California Avenue & Stockdale Hwy during the rush hours now. Since the only entrance/exit ramps to the Centennial Corridor in the area are Ming Avenue and Mohawk I predict more residents will use Stockdale and/or California Ave thus making the local traffic more congested than it is now.

GP-52-2

Noise

We can hear Hwy 99 from our home at night....I can't imagine how much noise there will be having it 3 doors from our home! Can CalTrans promise that sound walls will really make a difference and if they don't work what is our recourse as residents?

GP-52-3

Air Quality

Can we get assistance from Cal Trans to put in dual pane windows to help reduce the noise/dust that will certainly be a result of the construction phase and actual build out?

GP-52-4

Quality of Life / Community Cohesion

It is already a forgone conclusion the impact Alt B has had on Westpark...residents are abandoning their homes (just look at Marella Way)in anticipation of what's coming...it is such a shame. The quality of life in Westpark

GP-52-5

<p>GP-52</p> <p>will just continue to decline in my opinion.....I was born and raised in Bakersfield and lived here 60 years and remember what Bakersfield was like before Hwy 58 was extended to Real Road as well as the Fwy 178 build out....the adjoining properties have declined over the years next to the freeways.</p>	GP-52-5
<p><u>Property Acquisition / Relocation</u></p>	
<p>My house will be 3 doors from the freeway so I my home won't be taken and I don't qualify for acquisition/relocation unfortunately.</p>	GP-52-6
<p><u>Property Values</u></p>	
<p>It's obvious the values have dropped and it's not just because of the economy.....many resident's don't want it in 'their' neighborhood so what is the incentive to move in to the area now?</p>	GP-52-7
<p><u>Construction Related Impacts</u></p>	
<p>I am very worried about our pool - what is my recourse if it is cracked during construction or if our cultured stone/built in BBQ is cracked or our raised patio with cultured stone? Also - the 'critters' (ie bugs/rodents) will run for the hills when construction starts and our block will be in the direct path to the park....any suggestions on how we battle the displaced ant nests, cockroaches, rats? And last, but not least, how are we going to be assisted when our street loses power/water/sewer/gas since all of the those services will need to be re-routed (our block becomes a cul-te-sac)....will we be provided with alternative housing during the disruptions if they run into days/weeks instead of hours?</p>	GP-52-8
<p><u>Parks / Public Lands / 4(f)</u></p>	
<p>There only a handful of homes left in our area and we will be trapped between Centennial Park/Alt B freeway/new sump....we were hoping our few homes would be taken so the park could be extended for parking/green area/additional BBQ area (Hillsbrough/Kentfield Dr). We are greatly concerned about the residents useage of Centennial Park for BBQ/Dog Unleash area/Soccer/Tennis, etc. on our side of the park....the parking now is terrible on most weekends (nearly year round) and we can't imagine what it will be like when residents can only drive in from La Mirada Drwhere will they park? They already park in front of our homes and block our driveways often. If this is a foregone conclusion please, please have the city move the BBQ's/picnic tables to the other side of the park where there will be more parking available.</p>	GP-52-9
<p><u>Safety</u></p>	
<p>As stated above we are concerned about the limited access on to Kentfield Dr & Hillsborough with Fallbrook being closed on one end...problems leaving the area in the event of a fire/earthquake/Lake Isabella failing, etc. are a worry, especially if we can't get out of our driveways due to congestion from Centennial Park's limited parking on the east side after build-out.</p>	GP-52-10
<p><u>Aesthetics/Landscaping</u></p>	
<p>If it has to be built I am in favor of forgoing landscaping (since it's not maintained anyway on our existing freeways) for more decorative walls, etc. We were recently in Reno and their freeways are very attractive and clean with no landscaping, but decorated walls and some iron work which would require little upkeep.</p>	GP-52-11
<p><u>Alternatives</u></p>	
<p>It is so unfortunate that the Bakersfield City Council and Mayor Hall failed to keep their promise (in writing in 2000-2001) that the Cenntenal Corridor would never go through Westpark. As a result of their promise we</p>	GP-52-12

GP-52

decided to stay in our home and renovated our back yard with built in bbq, stonework, etc. in addition to re-roofing our home/paint, etc. If it has to be built I can not figure out why Hwy 58 isn't re-routed around the city instead of cutting right through the heart of Bakersfield. GP-52-12

Other

In closing - I appreciate the opportunity to provide my input....I'm aware that it will not likely change the outcome....however I do hope that some of the requests (ie decorative walls vs landscaping/moving BBQ's & picnic tables at Centennial Park, etc.) will be considered and adopted. It will be helpful for those of us left behind who will live next to the Corridor. Thanks again for reading my comments. GP-52-13

Response to Comment GP-52

Comment Code	Response
GP-52-1	<p>Your support for the No Build Alternative is acknowledged. Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project. Based on preliminary design plans for Alternative B, on- and off-ramps are provided at Mohawk Street, California Avenue and Ming Avenue. These interchanges are located less than 2 miles from the Westpark neighborhood. Between Ford Avenue and California Avenue, the alignment would be depressed, with overcrossings proposed at Marella Way and La Mirada Drive to help with local traffic circulation and provide access across the proposed freeway from areas formerly served by other nearby streets. In addition, Marella Way would be designated as a bikeway to replace an existing bikeway on Montclair Street that would be closed by the project. An undercrossing at Ford Avenue was also considered, and Caltrans has decided to implement the crossing. The Ford Avenue undercrossing would maintain the connection of Ford Avenue between Stine Road and McDonald Way. Preliminary design plans also indicate access to and from Kentfield Drive will require travel on Fallbrook Street. It is anticipated traffic volumes on Kentfield Drive and Hillsborough Drive would decrease due to several residential acquisitions. As a result of the decrease in neighborhood traffic on these two streets, traffic along Fallbrook Drive would also decrease.</p>
GP-52-2	<p>The Kern Council of Governments Regional Travel Demand Model was utilized, along with existing traffic counts and engineering judgment, to forecast peak-hour traffic volumes at key study intersections. One of the key intersections was Stockdale Highway and California Avenue, identified as intersection #35 in the Traffic Study technical report. A comparison of Year 2038 traffic volumes at this intersection under no-build conditions and Build Alternative B conditions indicates that traffic volumes will decrease as a result of the build project on both California Avenue and Stockdale Highway passing through this intersection. The traffic reductions during the PM peak hour (the peak hour with the heaviest volumes) will range from -10 to -31 percent for eastbound and westbound Stockdale Highway approach volumes respectively, and -4 to -19 percent for northbound and southbound California Avenue approach volumes, respectively.</p>
GP-52-3	<p>The predicted future peak hourly average traffic noise level at Receiver RB-51 which is the second house from the freeway would be 62 decibels in comparison to the existing peak hourly noise level of 51 decibels. This impact is lower than the noise abatement criteria of 67 decibels for residential areas, as shown in Table 3.32 in Section 3.2.7, Noise, Volume 1. Nevertheless, a sound wall would be constructed at this location. The proposed 12 foot sound wall at this area would reduce the noise level to 59 decibels, resulting in a net increase of 8 decibels in comparison to the existing noise level. Traffic noise levels were not predicted at 4413 Kentfield Drive, but based on the distance to the freeway, traffic noise would be lower by 3 decibels in comparison to Receiver RB-51. Therefore, the future predicted peak hourly noise level at 4413 Kentfield Drive with the proposed sound wall would be 56 decibels, about 5 decibels higher than the existing peak hour noise level. An increase in noise less than 5 decibels is barely perceptible to the human ear. Traffic noise levels will be much lower during the evening and night hours. Sound walls provide a substantial reduction in traffic noise levels, but they would not completely eliminate traffic noise.</p>
GP-52-4	<p>Caltrans will not be providing dual-pane windows to address potential noise and air impacts. Sound walls would be constructed as part of this project to address noise impacts.</p>
GP-52-5	<p>Your comment has been noted. Real estate market prices are mainly based on comparative sales in the area. Many factors contribute to market values, including</p>

Comment Code	Response
	location, neighborhood, current real estate sales in the area, school system, crime, taxes, government services, parks/recreation, and features of the home.
GP-52-6	Your comment has been noted. Property acquisition is determined by the property's location within Caltrans's right-of-way to construct the project. Caltrans will only purchase property if the parcel is needed for a project, or if a property is being affected to such an extent it is considered nonfunctional (inadequate access to and from your property). Your property is not within the required Caltrans right-of-way, and your property will not be affected to an extent where it is considered nonfunctional.
GP-52-7	<p>It has been expressed in some of the comments received from the public that the project would result in decreased property values due to various reasons, including temporary construction impacts, permanent construction impacts, and property acquisitions. Real estate market prices are mainly based on comparative sales in the area. Many factors contribute to market values, including location, neighborhood, current real estate sales in the area, school system, crime, taxes, government services, parks/recreation, and features of the home. The Centennial Corridor Project may or may not have an effect on the property values. In addition, Caltrans has found no literature, studies, or evidence that property values would decrease because of the realization of the Centennial Corridor.</p> <p>Past research using case studies on the effects of introducing new highway facilities near residential properties indicate that over the duration of a longer time period, property values will rise after an initial period of downward movement. More information regarding property values can be found in the Community Impact Assessment Study.</p>
GP-52-8	The house at 4413 Kentfield Drive is located at least 250 feet from nearest major construction activities related to the proposed freeway construction. At such distance construction activities such as moving dirt, grading, and compacting would not generate strong enough vibration to cause any structural damage. The contractor will be monitoring vibration levels during major construction activities and will implement the proper mitigation measures to reduce vibration levels. The project construction and/or operation is not expected to attract any additional bugs or rodents to the area than what previously existed. It is also not expected that the project construction would cause either bugs or rodents currently in the area to relocate in homes, neighborhoods or public spaces. The construction areas associated with the project are urbanized and/or developed areas that are not suitable habitat for any bugs or rodents. These areas include existing development and roadway facilities. In addition, the implementation of utility relocation plans would be used so long-term service disruption is not expected. Prior to the start of construction, neighborhoods along the project alignment will be provided contact information for getting additional information or file claims.
GP-52-9	<p>After construction of the project, access to Centennial Park via Fallbrook Street is only provided at La Mirada Drive. The proposed project would not affect the availability of on-street parking along Fallbrook Street once the project is constructed. However, Fallbrook Street would be converted into a cul-de-sac at Marella Way, which would eliminate a few existing on-street parking spaces. There would be sufficient surplus parking on the adjacent streets, and the existing surface parking lots at the park would remain available to park users.</p> <p>While Caltrans will work closely with the city of Bakersfield to minimize potential impacts to local traffic and pedestrian access near Centennial Park during the construction phase of the project, we encourage you to work with the city of Bakersfield Recreation and Parks Department to influence the relocation of the park's physical amenities. Additionally, if your driveway is blocked by illegally parked vehicles, please notify the Bakersfield Police Department. If on-street parking</p>

Comment Code	Response
	severely affects access to your property, you could notify the city of Bakersfield's Public Works Department to request parking restrictions within your area.
GP-52-10	Please see end of response GP-52-9 concerning contacting the city's Police Department or Public Works Department, depending on the issue. Caltrans acknowledges that your concern about limited parking is valid due to the proximity of the park in your area; however, it is important to note that similar cul-de-sacs and short streets with only one exit are fairly common in the Westpark neighborhood.
GP-52-11	The project landscape/aesthetic plans have yet to be finalized. If feasible, the project will accommodate more decorative designs on the walls. Additionally the landscaping would include several factors, such as aesthetics and drought tolerant plants.
GP-52-12	Several alternatives were initially screened prior to the preparation of the draft environmental document. One of the alternatives includes construction of a new freeway along State Route 223, which would have traversed outside the city. This alternative, known as Public Alternative 3, did not meet the purpose of the project and would have exceeded the availability of funds (at a cost of \$1.72 billion). As a result, this alternative was not carried forward. Discussion regarding eliminated alternatives can be found in Section 2.1.5, Alternatives Considered but Eliminated from Further Discussion, in Volume 1 of this final environmental document.
GP-52-13	Your comment is acknowledged.

Comment GP-53

GP-53

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Topics

Project Design Modifications

Please consider an addendum to the Corridor general plan that includes a transition ramp from southbound CA-99 onto westbound CA-58 using the Stockdale Highway exit ramp as a means of accomplishing this potential task. The continuation of CA-58 westward is long overdue, but the omission of that connection from 99 south the 58 west would be a huge oversight if not actualized.

GP-53-1

Response to Comment GP-53 (Comment Received after Public Review Period)

Comment Code	Response
GP-53-1	<p>None of the alternatives analyzed would provide direct connector ramps from southbound State Route 99 to westbound State Route 58 because of the low southbound-to-westbound traffic volumes for existing and projected future traffic forecasts. A deficiency in traffic operations for either current or future conditions is required to substantiate the need for a southbound State Route 99 to westbound State Route 58 direct connector. However, preliminary plans for all of the alternatives allow for the integration of a southbound State Route 99 to westbound State Route 58 direct connector ramp to be constructed at a future date when the need for this direct connector has been identified. If future traffic volumes necessitate construction of this direct connector, a separate project would be initiated by Caltrans. For more information please refer to Section 3.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, Volume 1 of this final environmental document.</p>

Comment GP-54

GP-54

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Topics

Alternatives

It seems from my perspective that the BEST alternative would be to tie into HWY. 99 (I believe ALT C) since minimal homes and businesses would be taken. This seems to be the biggest concern of a majority of those in opposition. But since CALTRANS has judged it to be the LEAST favorable alternative, it's difficult to address the differences between ALT B and ALT A. Both take a LARGE number of private residences and businesses, which ALT C does not.

GP-54-1

Response to Comment GP-54

Comment Code	Response
GP-54-1	<p>Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project.</p> <p>After comparing and weighing the benefits and impacts of all of the feasible alternatives (Alternatives A through C), Caltrans has identified Alternative B as the Preferred Alternative. This determination was made after reviewing the environmental impacts, including the following factors:</p> <p>Section 4(f) requires consideration of impacts on parkland and historic properties. Alternative B is the feasible and prudent alternative because it avoids impacts to Section 4(f) resources. Alternative A would impact the Kern River Parkway and the Rancho Vista Historic District, while Alternative C would have direct impacts to Saunders Park, which is a Section 4(f) property in an environmental justice community. Even with design modifications, neither Alternative A nor Alternative C could avoid Section 4(f) resources; therefore, only Alternative B was found as reasonable and prudent. Please refer to Table B.3 in Appendix B in Volume 2, Section 4(f), for a breakdown of feasibility analysis.</p> <p>Relocations were another crucial factor for the evaluation of the Build Alternatives. Alternative A requires the most property acquisitions and would produce the greatest number of displacements, totaling 356 residences and 127 businesses. Alternative C would displace fewer residents, but would require the most business displacements by taking 198 businesses. Alternative B would affect more housing displacements, but less business displacements than Alternative C. Alternative B has more community impacts since the alignment would bisect the Westpark neighborhood (in a diagonal manner), changing travel patterns within the general area. Alternative C would concentrate most of its residential displacements in two environmental justice communities, with the largest concentration of single-family home displacements in the environmental justice community south of Saunders Park. Alternative B has the least impact on environmental justice communities.</p> <p>The cost of the Build Alternatives also came under review. Alternative B was found to be the least expensive to construct compared to the other two build alternatives.</p> <p>Alternative B provides the most effective and feasible solution to predicted traffic congestion. Future 2038 traffic forecasts indicate better freeway operations for Alternative B; four deficient freeway segments are identified for Alternative B, while five deficient freeway segments are identified for Alternative C.</p> <p>Please review Section 2.1.3, Comparison of Alternatives, in the final environmental document (Volume 1) for more detail about each alternative and their impacts on pollution, construction, and cost. The decision to select Alternative B as the Preferred Alternative is not solely a Caltrans decision; input from the city of Bakersfield, County of Kern, and the public were considered prior to the selection of Alternative B.</p>

Comment GP-55

GP-55

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Topics

Air Quality

Large trees would be removed which currently help mitigate pollution from existing freeways in the area. This removal as well as the construction disturbances would result in a large extended neighborhood having dangerous air quality.

GP-55-1

Quality of Life / Community Cohesion

While probably feasible, the project is not prudent. Among other issues, it would severely disrupt an established community. See SER CH 20 section 4f definition of prudent.

<http://www.dot.ca.gov/ser/vol1/sec3/special/ch204f/chap20.htm#avoidance>

GP-55-2

Parks / Public Lands / 4(f)

while centennial park may technically be untouched, the neighborhood would completely lose its character and cohesion.

GP-55-3

Response to Comment GP-55

Comment Code	Response
GP-55-1	<p>Caltrans acknowledges that landscaping reduces surface warming and reduces carbon dioxide and understands the benefit of trees in reducing air quality pollutants and will preserve as many mature trees as practical. The landscape plan will incorporate a tree replacement plan that would plant one tree for every tree removed using 20-inch box (mature) trees. Caltrans is also proposing to provide tree plantings within private property. The Centennial Corridor Project will fund a \$200,000 grant to be provided to a non-profit organization, who will administer the voluntary tree planting program in order to plant as many trees as possible within 1,500 feet of the project alignment until funds have been exhausted. The voluntary tree-planting program would allow property owners to have this air quality mitigation on their property if they are willing to take responsibility for watering and care of the tree(s). Trees would be planted within private properties on a voluntary basis, with the highest priority for tree plantings in environmental justice communities within 1,000 feet of the Preferred Alternative B alignment, and secondly, properties within 500 feet of each side of the Alternative B alignment. If trees are available after the primary and secondary targeted areas, property owners within 1,500 feet of each side of the alignment would be given an opportunity for tree plantings. If trees are still available, they may be planted at other locations in consultation with and approved by the city of Bakersfield.</p> <p><i>Permanent Air Quality Effects</i></p> <p>The air quality study prepared for the Centennial Corridor Project indicates that potential air quality impacts were found to be less than significant and that the project would improve regional air quality due to reduction in congestion on local roadways and vehicle idling. Improvements to air quality are also attributed to the improved pollution emission performance of a modernizing fleet of all vehicles, especially heavy diesel trucks, as a result of Federal and State fuel content and engine emissions rules. In addition, the results of the air quality analysis indicate that the Centennial Corridor Project would be within regional and Federal air quality standards and would not cause or contribute to a violation of any air quality standards. To further minimize air quality pollutants within the general area of the project, Caltrans has entered into a Voluntary Emission Reduction Agreement with the San Joaquin Valley Air Pollution Control District. Through this agreement, targeted air quality improvements will be provided within the general area along the Preferred Alternative B alignment. More detailed information on air quality analysis can be found in Section 3.2.6, Air Quality.</p> <p><i>Air Quality Effects during Construction</i></p> <p>Construction of the project has the potential to create air quality impacts through the use of heavy-duty construction equipment. Fugitive dust emissions would result from earthwork and onsite construction activities. Reductions in fugitive dust can be achieved by onsite mitigation measures. Compliance with the standard conditions SC-CI-20 through SC-CI-22 listed under Avoidance, Minimization, and Mitigation Measures – Air Quality, Standard Conditions (refer to Section 3.6, Construction Impacts), would reduce construction emissions. Some of these measures to control dust include using water or chemical stabilizer/suppressant, covering disturbed areas with tarps, and limiting speeds in unpaved areas. Air emissions associated with construction activity would be temporary and would cease to occur after project construction is completed.</p>
GP-55-2	<p>After evaluating all comments received during the public review period for the Draft Environmental Impact Report/Environmental Impact Statement, Caltrans has selected Alternative B as the Preferred Alternative. Caltrans has certified that the project complies with the California Environmental Quality Act, prepared findings for all significant impacts identified, prepared a Statement of Overriding Considerations for impacts that will not be mitigated below a level of significance, and certified that</p>

Comment Code	Response
	<p>the findings and Statement of Overriding Considerations have been considered before project approval.</p> <p>The three build alternatives share many impacts that are the same or similar in magnitude. When determining a Preferred Alternative, the comparison focuses on those areas where the impacts are different or one alternative has greater impacts than the other alternatives. For the Centennial Corridor project, Alternative B avoids Section 4(f) properties, would not have disproportionate impacts on environmental justice communities, and is less costly.</p> <p>Section 4(f) of the Department of Transportation Act prohibits the Secretary of Transportation from approving a project that uses a Section 4(f) protected property if there is a feasible and prudent alternative to that use. Under Section 4(f) regulations, neither Alternative A nor C can be identified as the Preferred Alternative unless all of the other build alternatives can be shown not to be prudent and feasible. Even with design modifications, Alternatives A and C did not avoid Section 4(f) resources and were not found to be prudent or feasible. The analytical process required by Section 4(f) is addressed in extensive detail in the final environmental document in Appendix B, Section 4(f) Evaluation.</p> <p>Of the three build alternatives presented, Alternative A is the most expensive, has the greatest number of displacements, and would have the greatest impact on wetlands. It also affects a park and the Rancho Vista Historic District, both Section 4(f) properties. Alternative C is the more expensive when compared to Alternative B and would impact two environmental justice communities. It would also impact a Section 4(f) resource, Saunder's Park. Only Alternative B presents an alternative that avoids all Section 4(f) resources and is considered prudent and feasible.</p>
GP-55-3	<p>Caltrans agrees that construction of the freeway would cause impacts to the local neighborhood near Centennial Park. Chapter 3 of the final environmental document analyzes all three build alternatives and concludes that each would impact the existing community character in the areas they would traverse, including Westpark with Alternative B. The character and cohesiveness of this suburban development, which has existed since the early 1970s as an integrated community, would be changed, as detailed in Section 3.1.7, Visual/Aesthetics, Section 3.2.7, Noise, and Section 3.1.4, Community Impacts, in Volume 1. Impacts experienced at the neighborhood level would change the quality of life of many of the residents who live next to the new freeway. In addition, bisecting Westpark, as discussed in Section 3.1.1.5, could hinder the connectivity of the area. Access within the neighborhood, currently characterized by the ability to travel by means of a variety of modes, including walking and bicycling, would be altered. Construction of a freeway would create physical barriers in Westpark where none existed before; however, community impacts have been reduced through implementation of several mitigation measures, including providing three crossings at Marella Way, La Mirada Drive, and Ford Avenue; aesthetic design treatments; preserving as many mature trees as practical and replacing all trees on a 1:1 basis; and being especially sensitive and providing enhanced attention to people with special needs—especially the elderly, disabled, and low-income population groups—as part of the relocation process.</p>

Comment GP-56

GP-56

-----Original Message-----

From: Debi [<mailto:rtdrraa@yahoo.com>]

Sent: Tuesday, July 08, 2014 8:54 AM

To: Centennial@DOT

Subject: Centennial wall

Sent from my iPhone

I am opposed of the freeway entering in my neighborhood no matter how high you put that wall up. The noise level will still be there and the pollution from all the vehicles traveling will have a effect on my family since I have asthmatics and my neighbors are asthmatic as well but that will be saved for a future lawsuit against cal trans .

GP-56-1

GP-56

-----Original Message-----

From: Debi [<mailto:rtdrraa@yahoo.com>]

Sent: Tuesday, July 08, 2014 4:25 PM

To: Centennial@DOT

Subject: Centennial wall 58fwy

Sent from my iPhone

I am opposing the freeway coming down my street. As it shows by the map I will be across the street from the ding dong thing and if I wanted to be near the freeway I would have bought a home just as close but I chose to be as far away as I could but it seems to me cal trans will be doing whatever the heck they feel like doing regardless what home owners have to say about the expansion. But since I will be so close I guess air pollution from all those vehicles won't cause my family's asthma to act up but if it does then that's a law suit cal trans will have to endure. You can make that wall fifty feet high and it still would not solve the problems.

GP-56-2

Response to Comment GP-56

Comment Code	Response
GP-56-1	<p>The potential short- and long-term noise effects of the project and measures to address those effects are detailed in the Noise Section, 3.2.7, of the final environmental document (Volume 1). Results of the noise analysis for each build alternative indicate traffic noise would generally increase as a result of project implementation. The primary function of sound walls is to provide noise abatement. However, these walls could also function to block vehicle emissions from nearby residents.</p>
GP-56-2	<p>As mentioned in Response to Comment GP-56-1, the primary function of sound walls is to provide noise abatement; however, these walls could also function to block vehicle emissions from nearby residents.</p> <p><i>Permanent Air Quality Effects</i></p> <p>The air quality study prepared for the Centennial Corridor Project indicates that potential air quality impacts were found to be less than significant and that the project would improve regional air quality due to reduction in congestion on local roadways and vehicle idling. Improvements to air quality are also attributed to the improved pollution emission performance of a modernizing fleet of all vehicles, especially heavy diesel trucks, as a result of Federal and State fuel content and engine emissions rules. In addition, the results of the air quality analysis indicate that the Centennial Corridor Project would be within regional and Federal air quality standards and would not cause or contribute to a violation of any air quality standards. To further minimize air quality pollutants within the general area of the project, Caltrans has entered into a Voluntary Emission Reduction Agreement with the San Joaquin Valley Air Pollution Control District. Through this agreement, targeted improvements will be provided within the general area along the Preferred Alternative B alignment. More detailed information on air quality analysis can be found in Section 3.2.6, Air Quality. For more information on the Voluntary Emission Reduction Agreement, please see Appendix L in Volume 2 of this final environmental document.</p>

Comment GP-57

GP-57

-----Original Message-----

From: Susan Wyatt [<mailto:susanowvyatt@gmail.com>]

Sent: Tuesday, July 08, 2014 9:08 AM

To: Centennial@DOT

Subject: Property taxes

Are we going to be allowed to take our property taxes currently on our home that we must sell with us to our new residence and if so what is the procedure . Our we also guaranteed that those transferred taxes will not over inflate in a year or two. GP-57-1

Susan Wyatt,GRI,CRS

Response to Comment GP-57

Comment Code	Response
GP-57-1	<p>It is noted that Section 2(d) of Article XIII-A of the California Constitution and Section 68, Rule 462.5 of the Revenue and Taxation Code generally provide that property tax relief shall be granted to any real property owner who acquires comparable replacement property after having been displaced by governmental acquisition or eminent domain proceedings. Accordingly, your current property tax rate may be transferable to a newly purchased, comparable replacement property. If the property is acquired by the project, right-of-way agents will provide further information and stipulations of the tax relief process.</p> <p>As discussed in Section 3.1.4.2, Relocation and Property Acquisition, per Standard Condition SC-R-1, Caltrans shall implement all property acquisition and relocation activities in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894) in coordination with the city of Bakersfield. The Uniform Act mandates that certain relocation services and payments be made available to eligible residents, businesses, and nonprofit organizations displaced by the project. The Uniform Act provides uniform and equitable treatment by Federal or Federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies. See Appendix D in Volume 2 for more information on Caltrans' Relocation Assistance Program. Additionally, Mitigation Measure R-1 includes measures that may be considered by Caltrans for incorporation into the relocation plan to minimize impacts to displaced businesses and residences. These nine potential measures included in Mitigation Measure R-1 are a conscientious approach to the relocation of businesses and homes. They emphasize children's educational needs and resident's accessibility to relocation assistance materials and were developed to facilitate the relocation process. See Section 3.1.4.2, Relocation and Property Acquisition, in Volume 1, and/or Appendix F in Volume 2 for more information about Mitigation Measure R-1.</p> <p>Right-of-way acquisition will not be finalized until the final design phase. All potential acquisitions are subject to change during final design. Caltrans offers brochures that explain the acquisition process for renters, property owners, and businesses. The Right-of-Way Manual can be found on the Caltrans web site: http://www.dot.ca.gov/hq/row/.</p>

Comment GP-58

GP-58

Begin forwarded message:

From: Randa Hunter <rjhracer@aol.com>
Subject: Comments Centennial Corridor Project
Date: July 8, 2014 at 4:48:15 PM PDT
To: Centennial@dot.ca.gov

The Bakersfield Californian dated May 10, 2014 stated that West Park path would require far more demolition than previously thought, expanding earlier demolition numbers by 50%. What are the cumulative impacts to this mammoth miscalculation? It is only logical that the EIR and all of the separate Technical Studies i.e. Community Impact Assessment, Traffic Analysis, and Noise Studies would require addendum's.

Logic would follow that these addendum's will require hundreds of man hours. As a result of this miscalculation, what will be the monetary impact to the projects total cost? Ultimately, who will bear the financial burden of CALTRANS significant mistakes- we the tax payers?

GP-58-1

From Vanessa Vangel
2224 A Street
Bakersfield, ca 93301
Vanessavangel@yahoo.com

GP-58

-----Original Message-----

From: Randa Hunter [<mailto:rjhracer@aol.com>]

Sent: Tuesday, July 08, 2014 5:00 PM

To: Centennial@DOT

Subject: Comment to Centennial Corridor

When does CALTRANS plan on re-designating "Centennial Corridor" (very attractive name)! to its true name INTERSTATE 40? Do city and county tax payers typically foot the bill for a Federal highway project ?

GP-58-2

GP-58

-----Original Message-----

From: Randa Hunter [<mailto:rjhracer@aol.com>]

Sent: Tuesday, July 08, 2014 5:12 PM

To: Centennial@DOT

Subject: Comments to Centennial Corridor

The Centennial Corridor project was given three alternatives, A, B, and C plus no build. Is there a state or federal law that mandates the number of viable alternatives plus no build to a highway project? GP-58-3

GP-58

-----Original Message-----

From: Randa Hunter [<mailto:rjhracer@aol.com>]

Sent: Tuesday, July 08, 2014 5:25 PM

To: Centennial@DOT

Subject: Comments Centennial Corridor

CALTRANS claims that Alternative A, a connector southwest of Alternative B, would affect the Rancho Vista Historic District. I have resided in Bakersfield for over 40 years and have never heard of this historic district. When and by whom was this area given a historic designation?

GP-58-4

From Vanessa Vangel

2224 A Street

Bakersfield, CA 93301

vanessavangel@yahoo.com

Response to Comment GP-58

Comment Code	Response
GP-58-1	<p>A follow-up article was published by <i>The Bakersfield Californian</i> on September 10, 2014, clarifying their error on the number of property acquisitions. The author counted temporary construction easements, which are not subject to permanent acquisition.</p> <p>If additional impacts are identified following approval of the Centennial Corridor final environmental document, either the final environmental document will need to be updated or a re-evaluation will be required, along with supporting studies and documents. However, neither of these options is anticipated at this time.</p>
GP-58-2	<p>There are currently no plans to convert the Centennial Corridor into Interstate 40. Furthermore, it is not uncommon for Federal highway projects to include funding portions from local sources, commonly referred to as a “local match.” Typically, local match funds can be raised through numerous funding mechanisms, including city and/or county tax funds.</p> <p>Accordingly, funding for the project comes from multiple sources, including Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Federal legislation signed into law on August 10, 2005. The following funding sources have been identified:</p> <ul style="list-style-type: none"> • Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Section 1301 = \$90.44 million • Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Section 1302 = \$289.2 million • Other Federal sources = \$12.97 million • State = \$53 million • Kern County bond = \$57.5 million • City of Bakersfield = \$206.89 million
GP-58-3	<p>State and/or Federal law do not mandate a specific number of viable alternatives to be analyzed. It is noted that both the California Environmental Quality Act and National Environmental Policy Act require analysis of a no-build alternative for an environmental impact report and environmental impact statement, respectively. Under the California Environmental Quality Act, an environmental impact report requires analysis of a reasonable range of alternatives, including those which would attain most of the basic project objectives while avoiding or reducing the environmental effects of the project. Additionally, the National Environmental Policy Act requires that an environmental impact statement include analysis of all reasonable alternatives, including the no-build. Each viable alternative must be considered and discussed to a comparable level of detail.</p> <p>As part of the initial scoping process for the Centennial Corridor project, Caltrans considered a range of alternatives. Six build alternatives were developed by Caltrans and introduced at a public information meeting in March 2008. In addition, alternatives suggested by the public and alternatives from previous studies (the <i>Bakersfield Systems Study</i> [2002] and the <i>Final Route 58 Route Adoption Project, A Tier I Environmental Impact Statement/Environmental Impact Report</i> [2001]) were also evaluated as part of the initial screening. Even though the earlier studies rejected some of these alternatives, Caltrans determined they should be subject to the initial screening criteria as potential alternatives for the Centennial Corridor project. A total of 19 alternatives were reviewed as part of the initial screening process. Eighteen of these alternatives proposed construction of new roadway alignments (see Figure 2-7 provided in Volume 2), and one alternative proposed transportation system management and transit improvements.</p> <p>The initial screening process done in 2008 determined that Alternatives A, B, C, and D, and the No-Build Alternative, and the Transportation Systems</p>

Comment Code	Response
	<p>Management/Transportation Demand Management/Transit Alternative (Alternative M) warranted further study. These alternatives all received further analysis and additional screening and can be found in Section 2.1.5, Alternatives Considered but Eliminated from Further Discussion, in Volume 1 of this final environmental document.</p> <p>If an alternative does not achieve the intended purpose established for the project, it does not make sense to continue spending resources evaluating it, so it is eliminated from further consideration. Another factor in screening alternatives was the cost. An alternative was eliminated if the cost substantially exceeded the available funding. Alternatives D and M were eliminated after further screening because they did not meet the intended purpose and exceeded cost.</p>
GP-58-4	<p>The Rancho Vista District is not listed on the California Register of Historical Resources, nor is it on the National Register of Historic Places. However, many single-family residences on these streets were identified as being eligible for the National Register of Historic Places under Criteria A and C; therefore, they must be considered part of the Section 4(f) considerations. In Appendix B, Section 4.3 of the Centennial Corridor final environmental document Volume 2, the district is identified as eligible “under Criterion A for its significance in incorporating innovative mass-production technology during post-World War II. [And] under Criterion C the Rancho Vista Historic District is an important example of a postwar subdivision consisting entirely of houses built by the whole-house fabrication method.” Please refer to Section 3.1.8 (Cultural Resources) of the final environmental document (Volume 1) to read more about the Rancho Vista Historic District.</p> <p>As part of the identification and evaluation efforts required by Section 106 of the National Historic Preservation Act and in compliance with 36 Code of Federal Regulations 800.4, Caltrans prepared an Historic Property Survey Report for the Centennial Corridor Project, prepared by architectural historians and archaeologists who meet the Secretary of Interior’s Professional Standards (36 Code of Federal Regulations 61) for their respective discipline. Four properties within the project’s area of potential effects, including the Rancho Vista Historic District, were determined eligible for inclusion in the National Register of Historic Places following extensive research and field investigations. Rancho Vista Historic District was found to be a significant historic property for its collection of post-World War II tract houses incorporating innovative mass-production technology and a pioneering whole-house fabrication method. Please refer to Volume 1 of the Centennial Corridor final environmental document Section 3.1.8 to read more about the Rancho Vista Historic District. Caltrans has prepared a publication (available online), “<i>Tract Housing in California, 1945-1973: A Context for National Register Evaluation</i>” (2011), which establishes the analytical framework that architectural historians use to assess this property type.</p>

Comment GP-59

GP-59

From: Gary Crabtree [<mailto:gary@affiliatedappraisers.biz>]
Sent: Thursday, June 19, 2014 10:38 AM
To: Putler, Richard C@DOT
Cc: Taylor, Jennifer H@DOT; 'Wagner, Daniel'; Romero, Ken J@DOT
Subject: RE: Sound Wall S-509

Thank you Richard,

I have a couple more questions:

1. In the EIR you have stated that the proximity to Stockdale Christian School is 1,100 feet. I think that you need to recalculate that measurement. According to my measurement, the SCS playground boundary is approximately 340 feet from the nearest traffic lane of the alignment. The nearest classroom is approximately 370 feet. Assuming this data is true, how is the EIR impacted with reference to California Code – Section 21151.8?

GP-59-1

2. With respect to the above cited code. How can DOT assure the 750 students and their parents, plus the school staff, that the health risks from the alignment with respect to pollution sources do not and will not constitute an actual or potential endangerment of public health to persons who would attend or be employed at the school.

GP-59-2

3. With respect to the sound wall (S-509). According to the EIR, the current dBA is 52. The future traffic noise is predicted to range from 61 to 76 dBA or an increase of 9 to 24 dBA. As I understand the EIR, for every foot of height of a sound wall the dBA decreases 1 dBA and the maximum reduction with a 16 foot sound wall will range from 54 to 64 dBA. Are these sound measurements predicted for Stockdale Christian School at your stated 1,100 foot proximity? If so, what would the dBA levels be if that distance is lowered to 340 feet.

GP-59-3

Thank you for your consideration.

Gary

Gary Crabtree, SRA
Affiliated Appraisers
Bakersfield, California
Office - (661) 327-9045
Cell - (661) 747-9466

Response to Comment GP-59

Comment Code	Response
GP-59-1	<p>Thank you for participating in the environmental process for the Centennial Corridor Project. It is acknowledged that Stockdale Christian School is within approximately 375 feet of the Preferred Alternative B alignment. The final environmental document has been revised to indicate the correct distance between the Stockdale Christian School and the nearest travel lane. The California Environmental Quality Act statutes reference (PRC § 21151.8) specifically pertain to purchase of a school site or construction of a new public elementary or secondary school by a school district, and it is silent regarding a new roadway facility being placed adjacent to a private school.</p> <p>While State law CEC §17213 and PRC § 21151.8 prohibits construction of a new school within 500 feet of a freeway, there are no regulations restricting the construction of a freeway near existing school facilities.</p>
GP-59-2	<p><i>Permanent Air Quality Effects</i></p> <p>The air quality study prepared for the Centennial Corridor Project indicates that potential air quality impacts were found to be less than significant and that the project would improve regional air quality due to reduction in congestion on local roadways and vehicle idling. Improvements to air quality are also attributed to the improved pollution emission performance of a modernizing fleet of all vehicles, especially heavy diesel trucks, as a result of Federal and State fuel content and engine emissions rules. In addition, the results of the air quality analysis indicate that the Centennial Corridor Project would be within regional and Federal air quality standards and would not cause or contribute to a violation of any air quality standards. More detailed information on air quality analysis can be found in Section 3.2.6, Air Quality.</p> <p><i>Air Quality Effects during Construction</i></p> <p>Construction of the project has the potential to create air quality impacts through the use of heavy-duty construction equipment. Fugitive dust emissions would result from earthwork and onsite construction activities. Reductions in fugitive dust can be achieved by onsite mitigation measures. Compliance with the standard conditions SC-CI-20 through SC-CI-22 listed under Avoidance, Minimization, and Mitigation Measures – Air Quality, Standard Conditions (refer to Section 3.6, Construction Impacts), would reduce construction emissions. Some of these measures to control dust include using water or chemical stabilizer/suppressant, covering disturbed areas with tarps, and limiting speeds in unpaved areas. Air emissions associated with construction activity would be temporary and would cease to occur after project construction is completed.</p> <p>Potential localized operational and construction related air quality impacts will be further minimized through the Voluntary Emission Reduction Agreement with the San Joaquin Valley Air Pollution Control District. Appendix L provides a copy of the Voluntary Emission Reduction Agreement.</p>
GP-59-3	<p>The draft environmental document incorrectly stated the distance to the Stockdale Christian School at 1,000 feet for Alternative B. However, the Stockdale Christian School noise analysis was correctly modeled, which is represented by Receiver RB-38. The distance between the RB-38 and the edge of the proposed shoulder is approximately 375 feet; hence, the results of the noise analysis for RB-38 as presented in Section 3.2.7 are correct.</p> <p>The Stockdale Christian School was represented by Receiver RB-38 in the traffic noise impact analysis, which is approximately 375 feet from the edge of the proposed shoulder. The existing peak exterior noise level of 52 decibels is based on the long-term measurement site (LT9), which was within 200 feet of the school. The predicted future peak noise hour traffic noise level for Alternative B at the school is 58 decibels, which is 6 decibels higher than the existing noise level, but it is 8</p>

Comment Code	Response
	<p>decibels below the threshold for impact (as outlined in Section 3.2.7, Noise, in Volume 1); therefore, the school is not considered impacted and does not qualify for abatement under Federal Highway Administration and Caltrans guidelines. In addition, Sound walls S509 and S519, which are considered for the impacted residences along Del Ray Court, would also provide 1 decibel of traffic noise reduction to the school. Therefore, the future exterior traffic noise levels at the school will be 57 decibels with the sound walls, which will be 5 decibels higher than the existing noise level. The increase of 5 decibels is barely noticeable to the human ear and is below the Federal Highway Administration Noise Abatement Criteria of 67 decibels for the exterior of a school. These Noise Abatement Criteria are defined in Title 23 Code of Federal Regulations 772 and can also be found in Section 3 of the Caltrans Traffic Noise Analysis Protocol, May 2011.</p> <p>The traffic noise levels for the receivers range from 61 to 76 decibels without a sound wall for Alternative B. However, it is erroneous to assume that each height increase of 1 foot to the sound wall corresponds to a noise reduction of 1 decibel. Table H-2 on page 455 of the Noise Study Report shows the noise levels and sound wall performance for Receiver RB-38, which represents the Stockdale Christian School, as well as the other receivers in this area.</p>

Comment GP-60

GP-60

Tami L. Conrado
Chief, Office of Public Information and Legislative Affairs
Caltrans - District 6
(559) 488-4082
<http://www.dot.ca.gov/socialmedia>



From: Freer, Marcy@DOT On Behalf Of Web Admin@DOT
Sent: Tuesday, June 10, 2014 5:34 PM
To: Conrado, Tami L@DOT
Subject: FW: Caltrans web feedback page

Hi Tami - see below, from the web. Thanks

Marcy Freer
Phone 916.654.3644
External Affairs

-----Original Message-----
From: ray_clanton@oxy.com [mailto:ray_clanton@oxy.com]
Sent: Tuesday, June 10, 2014 12:26 PM
To: Web Admin@DOT
Subject: Caltrans web feedback page

Below is the result of your feedback form. It was submitted by ray_clanton@oxy.com on June 10th, 2014 at 12:25PM (PDT).

county: Kern
URL: <http://dot.ca.gov/dist6/environmental/projects/centennial/publichearing.html>
message: I cant attend the hearing, but would like to comment. HMY 58 dead ending into a subdivision is embarrassing, when you fix this, make sure you can expand it later as Bakersfield is growing. Thanks for fixing this and please work with or planners to avoid stupid mistakes like this. In the future. The city needs a loop (without traffic signals!
email: ray_clanton@oxy.com

GP-60-1

----- Env Report -----
REMOTE_HOST:
REMOTE_ADDR: 149.136.20.125

Response to Comment GP-60

Comment Code	Response
GP-60-1	<p>Your comment is noted. Caltrans recognizes the deficiency of the current State Route 58 (east) terminating at Real Road and has developed the Centennial Corridor Project to address this issue. Caltrans will continue to work to address future deficiencies in traffic operations in the area.</p> <p>There are no current plans to construct a freeway loop around the perimeter of the metropolitan area of Bakersfield. Discussion regarding alternate designs can be found in Section 2.1.5, Alternatives Considered but Eliminated from Further Discussion, in Volume 1 of this final environmental document.</p>

Comment GP-61

GP-61

Name: alan booth
Address: po box
City:
State: CA
ZIP:
Email: alan@portfolioproperties.com

Topics

Property Acquisition / Relocation

lower property values

GP-61-1

Property Values

will be negatively impacted

Parks / Public Lands / 4(f)

you can certainly mitigate the Saunders Park with a swipe of Obama's pen

GP-61-2

Response to Comment GP-61

Comment Code	Response
GP-61-1	<p>Thank you for participating in the environmental process for the Centennial Corridor Project. Several comments were received regarding property values. Some individuals have expressed a general belief that the project would result in decreased property values due to various reasons, including temporary construction impacts, property acquisitions, and/or project features being closer to properties than previously. However, the final environmental document does not specifically discuss property values as part of compliance for either California Environmental Quality Act/National Environmental Policy Act analysis since it is not required or expected.</p> <p>The Centennial Corridor Project may have an effect on property values, but it is not likely to be a major change based on literature that Caltrans reviewed and summarized for Appendix D of the Standard Environmental Reference Volume 4 (Community Impact Assessment).</p> <p>The effects of highway improvements on property values have been studied extensively, especially the impacts on single family residential property. Most studies, though not all, conclude that new transportation facilities, including freeways, have an overall positive effect on property values.</p> <p>One such independent research study, conducted by professors from Cal Poly University Pomona, evaluated the effects on housing prices of a new freeway in Southern California, Interstate 210 extension, which opened in 2002 (Reibel, et. al. 2008²⁰). It is worth noting that in looking at four years of housing sales data, the researchers found that while all house prices generally continued to climb in the freeway corridor, those houses located within 0.4 mile of the new freeway facility did not see their values rise as rapidly. The authors attributed this, as have other studies, to certain negative effects associated with freeways which are often found at very short distances on houses nearby, such as increased noise, and air pollution, and which may have the effect of keeping the value of the house from increasing at the same rate of those located further away (that is, beyond 0.4 mile). At the next functional range of distances, the benefits are still close enough to be beneficial but the general negative proximity impacts are diminished. At even greater distances away from the new freeway, the value of increased mobility and accessibility gradually declines to zero. In particular, price appreciation following the freeway construction is the slowest for houses in the closest proximity to the freeway (within 0.4 mile), much faster at moderate distances, and slower again as the distance further increases. In addition, another study concluded that freeway design is also an important factor, with depressed freeways contributing most to property values (Siethoff 2002²¹). Freeway grade has a consistent impact on land value, with the depressed sections having the highest land value for residential properties. The rationale is that the less visible the freeway, the higher the value to residential owners. This pattern is consistent with studies reviewed for Caltrans Volume 4 Appendix D. Another study conducted for the Arizona Department of Transportation and the Federal Highway Administration California found that property values increase at a greater rate for both commercial and multi-unit apartments over single family residences (Carey: 2001²²).</p>

²⁰ Reibel, Michael. House Price Change and Highway Construction: Spatial and Temporal Heterogeneity. California State Polytechnic University, Pomona.

²¹ Siethoff, Brian ten. Property Values and Highway Expansions: An Investigation of Timing, Size, Location, and Use Effects. Cambridge Systematics, Inc. Cambridge, MA. January 2002.

²² Carey, Jason. Impact of Highways on Property Values: Case Study of the Superstition Freeway Corridor. Arizona Department of Transportation. Phoenix, AZ. October 2001.

Comment Code	Response
	Past research using case studies on the effects of introducing new highway facilities near residential properties indicates that over the duration of a longer time period, property values will rise after an initial period of downward movement.
GP-61-2	Your comment is acknowledged. Saunders Park will not be affected under the Preferred Alternative (Alternative B). Saunders Park would only be affected under Alternative C, which would result in permanent impacts totaling 3.27 acres.

Comment GP-62

GP-62

Name: Jonathan Mills

Address: 1222 Woodrow Ave.

City: Bakersfield

State: CA

Email: jonathan.rbsandrini@gmail.com

Topics

Project Design Modifications

I believe Option B is the best option for our community

GP-62-1

Traffic

Building a connection between hwy 99 and I-5 via the Centennial corridor is vital to the growth of our community.

GP-62-2

Quality of Life / Community Cohesion

This project will reduce traffic on surface streets and allow better flow of traffic between Hwy 99 and I-5

GP-62-3

Property Acquisition / Relocation

while I am not directly affected I do feel that the people who will be displaced will need more than just "fair market value" we also need to provide assistance to the displaced property owners and make sure that they are not left out on the streets with nowhere to go. with this said I am still in support of completing the centennial corridor

GP-62-4

Construction Related Impacts

There will be some growing pains but it is for the greater good

GP-62-5

Safety

This project will increase safety on the roads by reducing traffic on major choke points on our local roads

GP-62-6

Other

My late Grandfather L. Dale Mills (ret. Director of public works for Kern county) dreamed about completing this project before there were so many houses in the way. We should have done this sooner but right now our Community and Economy depend on the completion of this project.

GP-62-7

Response to Comment GP-62

(Comment Received after Public Review Period)

Comment Code	Response
GP-62-1	Your support for Alternative B is acknowledged.
GP-62-2	<p>The Centennial Corridor Project is anticipated to provide an efficient movement of traffic, goods, and materials through metropolitan Bakersfield by providing route continuity from the State Route 99/State Route 58 interchange to Interstate 5. Bakersfield is positioned to be the economic center of the San Joaquin Valley because of its proximity to Interstate 5 and State Route 99, the two major corridors for goods movement, as well as its location between Los Angeles and the Bay Area.</p> <p>In addition, improved access throughout Bakersfield would benefit agricultural-oriented businesses that are west and east of Bakersfield because travel time and associated costs to and from those businesses and distribution facilities in the downtown area of Bakersfield and along State Route 99 and State Route 58 would be reduced.</p>
GP-62-3	A discussion of the positive benefits of the project on traffic is provided in Section 3.1.6, Construction Impacts, of the final environmental document.
GP-62-4	<p>Caltrans, in coordination with the city of Bakersfield, shall implement all property acquisition and relocation activities in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894). The Uniform Act mandates that certain relocation services and payments be made available to eligible residents, businesses, and nonprofit organizations displaced by the project. The Uniform Act provides uniform and equitable treatment by Federal or Federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies. See Appendix D in Volume 2 for more information on Caltrans' Relocation Assistance Program. Additionally, Mitigation Measure R-1 (Section 3.1.4.2) includes measures that may be considered by Caltrans for incorporation into the relocation plan to minimize impacts to displaced businesses and residences. Accordingly, acquisitions would be conducted as necessary to build the approved project, and displaced residents would be provided just compensation in accordance with the Uniform Act.</p>
GP-62-5	<p>Construction-related impacts are anticipated as a result of the proposed project. These temporary impacts may include traffic impacts due to lane/road closures, air quality, and noise. The proposed project will implement measures to minimize impacts to the greatest extent feasible. Construction-related mitigation and minimization measures are provided in Section 3.6, Construction Impacts, in this final environmental document.</p>
GP-62-6	Your comment is acknowledged.
GP-62-7	Your comment is acknowledged.

Comment GP-63

GP-63

Jose Espinoza
July 8

Property Acquisition/Relocation

Neighborhood they will be using to comp. has a F rating for crime. This is unfair to our home market value.

GP-63-1

Response to Comment GP-63

Comment Code	Response
GP-63-1	<p>Real estate market prices are mainly based on comparative sales in the area. Many factors contribute to market values, including location, neighborhood, current real estate sales in the area, school system, crime, taxes, government services, parks/recreation, and features of the home.</p> <p>Real estate appraisals would be conducted fairly using comparative sales within the general area of your property. Whether or not the comparable sales area is rated "F" for crime, right-of-way agents will explain their real estate appraisal with the property owners.</p> <p>Real estate property acquisitions would comply with the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970. The Uniform Act mandates that certain relocation services and payments be made available to eligible residents, businesses, and nonprofit organizations displaced by the project. The Uniform Act provides uniform and equitable treatment by Federal or Federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies. Caltrans has developed the Relocation Assistance Program to satisfy the provisions stated in the Uniform Act and to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. See Appendix D in Volume 2 for more information on Caltrans' Relocation Assistance Program.</p> <p>As discussed in Section 3.1.4.2, Relocation and Property Acquisition, per Standard Condition SC-R-1, Caltrans, in coordination with the city of Bakersfield, shall implement all property acquisition and relocation activities in accordance with the Uniform Act and Caltrans's Relocation Assistance Program. Right-of-way agents will follow standardized guidelines during the appraisal process to determine a fair market value of the property. Additionally, principles of real estate market values are primarily based on comparative sales in the area. Many factors contribute to market values, including location, neighborhood, current real estate sales in the area, school system, crime, taxes, government services, parks/recreation, and features of the home.</p>

Comment GP-64

GP-64

From: Shelley kraft [<mailto:skshelley4@gmail.com>]
Sent: Sunday, July 13, 2014 2:37
To: Centennial@DOT
Subject: SAVE THE TREES

I wanted to express my concern for saving some of the rather old trees along the corridor's way. Thank you.

GP-64-1

Response to Comment GP-64

Comment Code	Response
GP-64-1	<p>Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project. To construct the project, trees (including old mature trees) would be required to be removed. Caltrans would preserve (protect in place) as many mature trees as feasible. Because of the limited available design at this phase of the project, detailed information on the number of mature trees could not be quantified; therefore, a determination could not be made whether mature trees could be preserved. A tree survey will be completed during the final design phase of the project that would identify locations of existing specimen-sized trees (larger than 20 feet high). Caltrans would identify trees within the project area that could be preserved and provide fencing in the design plans to protect them. If a tree could not be preserved, the landscape plan will incorporate a tree replacement plan with a replacement ratio of 1:1 (i.e., for every one tree removed, a tree will be planted). Mature trees (larger than 20 feet high) that are to be removed would be replaced using 20-inch box trees.</p>

Chapter 7 Responses to Oral Comments Received at the June 11, 2014 Public Hearing

This section provides oral comments received on the draft environmental document from persons attending the public hearing held on June 11, 2014. A total of 6 oral comments were recorded and are summarized below. Transcripts of the oral comments and responses to topics of concern are provided on the pages that follow.

Table 7.1 Summary of Oral Comments Recorded at the June 11, 2014, Public Hearing

Comment Code	Commenter Name	Comment Topics
PH-1	Jim Landers	Design modification
PH-2	Dennis Fox	General
PH-3	Karen Landers	Design modification
PH-4	Roberta Bender	Design modification
PH-5	Vicky Gresham	General, Design modification, Traffic
PH-6	Darlene Simpson	Community cohesion, Relocation

Comment PH-1

PH-1

Centennial Corridor Meagan 6-11-14.TXT

BAKERSFIELD, CALIFORNIA

Centennial Corridor

Public Comments

June 11, 2014

Transcribed by: Meagan Coles

1 JIM LANDERS: Jim Landers, L-a-n-d-e-r-s. I
2 would like to have La Mirada Drive turned into a
3 cul-de-sac. That's an option to have over there. They
4 said you need to tell us, and that's what I am doing.
5 And that's about it for right now.
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PH-1-1

Page 1

Response to Comment PH-1

Comment Code	Response
PH-1-1	<p>Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project. As described in the final environmental document (Volume 1, Summary, and Section 2.1.1, Build Alternatives), the Preferred Alternative (Alternative B) includes an overcrossing at La Mirada Drive to help traffic circulation. Sheet 10 for Alternative B shows the overcrossing and can be found in Appendix E of Volume 2.</p> <p>Caltrans has analyzed the benefits associated with minimizing impacts on the remaining neighborhood, costs and maintaining circulation between neighborhood sections that would otherwise be cut off.</p> <p>The proposed overcrossings at La Mirada Drive and Marella Way, as well as the proposed undercrossing at Ford Avenue, would allow three local streets to remain open between California Avenue and Stockdale Highway.</p> <p>At this early stage of the project, it is assumed that all of the above-mentioned design options (Marella Way Overcrossing, Ford Avenue Undercrossing, and La Mirada Drive Overcrossing) would be constructed as part of the project. These crossings would help to maintain community cohesion and connectivity between either side of the neighborhood.</p>

Comment PH-2

PH-2

Centennial Corridor Meagan 6-11-14.TXT

BAKERSFIELD, CALIFORNIA

Centennial Corridor

Public Comments

June 11, 2014

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6 DENNIS FOX: My name is Dennis, two "Ns," Fox
7 with one "X." I was on the 2010 plan, and that goes 20
8 years before 2010. They did a 2010 General Plan for
9 the city of Bakersfield. At that time the circulation
10 element -- it was when Bakersfield was being sold.
11 Bakersfield was sold along with stock and politician

PH-2-1

Page 1

PH-2

Centennial Corridor Meagan 6-11-14.TXT
12 from people who, uhm, the factors -- the people who got
13 us to invade and take over Hawaii. And, uhm, we got
14 into the -- the service level was dropped from Service
15 Level A to Service Level D, and, you know, for the
16 benefit of the developer. And they decided that the
17 freeway was needed to go out there.

18 Bakersfield, as you may know, is always
19 behind 20 years' current stuff. We are a conservative
20 area, not conservative like (unintelligible) and self
21 reliance. "Conservative" here means backward and
22 getting goodies from Uncle. That's why we always have
23 to say we are conservative to deny that we always have
24 to get something from somebody else, like water from
25 farmers in California. We want their water for here to

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PH-2-1

1 sell to LA and stuff like that.

2 The, uhm, the development originally was to
3 be on the eastside. There was even a Catholic school
4 and Catholic church on Niles, and I think there was a
5 couple of schools that died because Bakersfield -- the
6 General Plan just -- Bakersfield development moved from
7 east Bakersfield over to the west where it is now.
8 Very, very odd on behalf of an outside entity. And
9 Bakersfield is always talking about being southern, but
10 for 150 years we are always dependent on outside
11 entities to tell them what to do, especially, with the
12 water and with the development. So at that time they
13 wanted a freeway and -- this current freeway.

14 Originally the freeway -- 58, which dead
15 ends -- dead ended into a house, and they had cows --
Page 2

PH-2

Centennial Corridor Meagan 6-11-14.TXT

16 cows. I remember they had semis driving into the
17 people's house. They had to go out and lasso the cows
18 on the freeway. So they put in the Wild West Shopping
19 Center where they lassoed the cows. Wild West -- and
20 they put up a burn there to catch the cars. The
21 freeway was suppose to go straight from there and
22 continue west.

23 Well, the rest of the reservation stopped
24 because the developers wanted to put houses in there.
25 It was because we were unable to do future thinking

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1 before other people's immediate profits take over, you
2 know, and what's more important at the time. So the
3 freeway did not go out past Cal State anyway.

4 And in the General Plan -- not a lot but some
5 others thought expressways would be better for less
6 money. Expressways were getting quite common in urban
7 areas -- new urban areas like Temecula and Sacramento.
8 And I brought up Sacramento, they were using
9 expressways, and they are limited access like a
10 freeway. And they're very inexpensive, you know. They
11 get two for the cost of one freeway -- two or three,
12 you know. So they thought that was better. One was
13 7th Standard going out, and then there was one where
14 there was a north expressway instead of what they have
15 now, which they could have done the expressway -- to
16 come in and have 24th Street go across the 178. They
17 all wrapped up in a flyover. This sounds good. This
18 means we will be a large and sophisticated town if we

PH-2-1

Page 3

PH-2

19 Centennial Corridor Meagan 6-11-14.TXT
had a freeway and a flyover. That's bizarre.

20 The -- I am going to give you a lot of
21 history. With me, it is current events that go back
22 150 years.

23 Uhm, the route that was put -- the newspaper
24 that we have is very, very ruthless and has a lot of
25 turnover and people not knowing what is going on and

4

1 what. So -- uhm, and our electronic media -- I mean,
2 we have people on TV who are just here for a while
3 generally to where they can get a better job and put it
4 on their tapes -- on their audition tapes and say, "Do
5 you want fries with that?" Which, actually, I found
6 out is a better paid profession.

PH-2-1

7 So the environmental movement here is fixated
8 on a river parkway. Or a -- riverbed parkway shall we
9 say is probably more appropriate, and -- a lot of
10 people don't know where the river goes. Most people in
11 Bakersfield don't know where the river goes. Do you
12 know where the river goes? It goes to LA. So
13 anyway -- with a little help. So anyway, they were
14 fixating on this, and they don't want to look across a
15 river and a freeway. So they want the river to go out
16 and go through the endangered species complex and that
17 section, which is currently being looked at by 10
18 section oil field, which is an endangered species
19 preserve and the environmentalist, S.U.L.D., and I will
20 tell you why.

21 Uhm, that was brought up -- and going through
22 the water bank and the endangered species areas this

Page 4

PH-2

Centennial Corridor Meagan 6-11-14.TXT

23 was mentioned by the water -- the Cali PA -- uhm, Linda
24 Adams. Ask why do you want that freeway to go through
25 all that endangered animals areas? To which she said,

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1 Carl Pope. They deny that they are a cult, but they
2 had their own pope. The Sierra Club Chapters do very
3 anti-environmental things, but if they were to call
4 them on it, they would fire him. Very telling. So
5 that's where the freeway is going -- out there.

6 The freeway is now going and has to go
7 through these people's houses, and that's because of
8 the Thomas Road Improvement Act, TRIP, which should
9 be -- T-R-I-P, Thomas Road Improvement Project -- which
10 should be the Planning of the Road of Kern, or "PORK,"
11 because it is "PORK" that is a conservative area
12 because of so much federal money that he acquired. He
13 is also famous, but not locally, for setting up
14 Medicare Part D, which was heavily influenced by his
15 dahlins with the lady lobbyist for the big
16 pharmaceutical companies, which the federal
17 government -- bankrupting the federal government by
18 paying full price for prescription drugs where other
19 countries -- uncivilized, negotiate a price.

PH-2-1

20 So it is my contention this freeway should
21 not be called the Westside Parkway, but the Debbie
22 Stealmen (phonetic) freeway. For it is doing to the
23 residents of the area what Congressman Thomas was doing
24 to Debbie Stealmen.

25 But anyway, it would have been just as -- it

Page 5

PH-2

Centennial Corridor Meagan 6-11-14.TXT

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1 would make more sense to go straight across and be a
2 lot less expensive to run that freeway right over to
3 the 99 and not go through all the houses. The thick of
4 the problem is that we might lose funding because it
5 would take off a chunk of Saunders Park, which shows
6 the need for federal. We can't do things here locally,
7 and it would probably cost us greatly since you are
8 talking about houses to run it across the river. Maybe
9 take out a piece of Beach Park rather than -- but we
10 would lose gifts from Uncle Sam, and that's the main
11 thing.

12 Anyway, I think it would be cost effective to
13 run that out there. I think it would be more effective
14 to have a expressway on 7th Standard. This is because
15 the semis now use Rosedale, which they will still do,
16 and every time they have to go through all the gears
17 and going through the gears is what causes them to put
18 out pollutants, and they go from stop light to stop
19 light to stop light. So on the expressway they run.

20 I would also -- I have been making cracks
21 about Paramount, but they have a large industrial
22 complex on 7th Standard, and I would like to see stuff
23 moved there so they can train -- so they can ship our
24 water in the form of almonds and nuts to China. It's
25 good for the balance of payments. I have problems with

7

1 some aspects of Paramount's operations, but other
Page 6

PH-2-1

PH-2

Centennial Corridor Meagan 6-11-14.TXT

2 things I don't, you know. And their pumping water out
3 from under Bakersfield I am not in favor of because of
4 the -- they are not going to go get the water to push
5 back up. They are losing underground water capacity,
6 and they have subsidies in the valley. The valley is
7 sunk 20 - 30 feet. So they want to restore the
8 San Joaquin area and end up with a big mud puddle. So
9 it would take years and tons and tons of water to get
10 that thing turned back into a river. They don't do
11 long -- sometimes my long-term projections -- I will
12 admit, get involved, you know. It won't hold up
13 things -- you know, it's best to look at. Sometimes
14 you have to just go ahead and do it. But this one will
15 not only -- you don't lose the houses that it's taking
16 up. You are going to lose a whole neighborhood and
17 objectivity.

PH-2-1

18 And, uhm, I was wondering -- but definitely
19 we have to give it the Debbie Stealmen name in there
20 and, uhm, wonder if that's going to be a twofer.

21 The developers are quite generous with their
22 political contributions, which after your political
23 career you get to keep. The houses that people lose,
24 their houses will move out and buy new houses for them.
25 So, you know, why don't they just give them free houses

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1 on behalf of the developers? It would be nice if they
2 do that. Next time he is here from North Carolina, if
3 they had (unintelligible) go consider that. I am
4 getting snotty, but, uhm, rhetorically it gets

Page 7

PH-2

5 Centennial Corridor Meagan 6-11-14.TXT
6 attention.

7 But mainly, I see it as the
8 Debbie Stealmen -- it is -- it's counterproductive.
9 where as if they modified "A" and moved into the north,
10 they could get a twofer off the 178, and that's it -- I
11 think. I am forgetting something.

12 You do know by the way, about planning it?
13 Highway 58 comes into Bakersfield six lanes. When it's
14 in the town where the people are it drops to four. I
15 think that is inconsistent. I do not believe that
16 Bakersfield -- and I have been told this by somebody
17 who would know from the planning -- can do it's own
18 planning, but it's being done by outside entities, and
19 it's own destiny is outside of the water and
20 everything.

21 I don't think that Bakersfield should be
22 doing it's own planning on water -- it's own water
23 managing -- groundwater management area. It just gives
24 it -- because it's an area of extracting. I am getting
25 repetitious. It's an area of economic -- it's an
26 economic calling where things -- we don't make things

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PH-2-1

1 here. Basic things are extracted here. You following
2 me?

3 Although as Workmen (phonetic) says, who
4 writes for the LA Times, Bakersfield is the most
5 interesting town in America, and I agree. Not to many
6 towns like it. He wrote the book about -- he has
7 written a couple of books about the area, and it's a
8 comedy and stuff.

Page 8

PH-2

Centennial Corridor Meagan 6-11-14.TXT

9 Seventy-five years since the publication of
10 "Grapes of Wrath" and not all that much has changed.
11 Seriously. It's a pattern, and it's a habit; and power
12 of habits just came out with an interesting book.
13 Habits, you don't get rid of them, but you can change
14 them; and I don't see them changing, and I don't see
15 them being dropped. We are always going to be
16 Bakersfield, subservant to other peoples' plans and
17 designs for the area. Yeah, I think this is a perfect
18 example of it.

PH-2-1

19 Couldn't ISTE federal funding be used to
20 offset going through parks? Why don't they get it?
21 That is a big question. I should have stopped and
22 asked that one because it was quick, but it was more
23 fun being snotty and sarcastic.

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25

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1 STATE OF CALIFORNIA. }
2 COUNTY OF KERN } ss.

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7 I, Meagan Coles, do hereby certify that I
8 transcribed the foregoing-entitled matter; and I
9 further certify that the foregoing is a full, true, and
10 correct transcription of such proceedings.

11 Dated this 1st day of June, 2014, in

Page 9

PH-2

12 Centennial Corridor Meagan 6-11-14.TXT
13 Bakersfield, California.
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18 Meagan Coles
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Response to Comment PH-2

Comment Code	Response
PH-2-1	Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project. Your opposition to Alternative B is acknowledged.

Comment PH-3

PH-3

Centennial Corridor Tiffany 6-11-14.TXT

BAKERSFIELD, CALIFORNIA

Centennial Corridor

Public Comments

June 11, 2014

Transcribed by: Tiffany Barbour

1 THE REPORTER: Just give me your name --
2 MS. LANDERS: My name is Karen Landers. Oh,
3 just say what I want --
4 REPORTER: Is that spelled L-a-n- --
5 KAREN LANDERS: Oh, I'm sorry.
6 L-a-n-d-e-r-s. And do you want me to keep talking?
7 Okay.
8 This is about the proposed cul-de-sac on
9 La Mirada. I know they're thinking about having it go
10 straight through or a cul-de-sac. And I think there's

Page 1

PH-3-1

PH-3

11 Centennial Corridor Tiffany 6-11-14.TXT
12 going to be a lot of traffic on the remaining homes if
13 it's -- if it goes through. So I would love to see
14 La Mirada turned into a cul-de-sac. That's it.
15 Thanks.

PH-3-1

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Page 2

Response to Comment PH-3

Comment Code	Response
PH-3-1	<p>Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project. As described in the final environmental document (Volume 1, Summary, and Section 2.1.1, Build Alternatives), the Preferred Alternative (Alternative B) includes an overcrossing at La Mirada Drive to help traffic circulation. Sheet 10 for Alternative B shows the overcrossing and can be found in Appendix E of Volume 2.</p> <p>Caltrans has analyzed the benefits associated with minimizing impacts on the remaining neighborhood, costs and maintaining circulation between neighborhood sections that would otherwise be cut off.</p> <p>The proposed overcrossings at La Mirada Drive and Marella Way, as well as the proposed undercrossing at Ford Avenue, would allow three local streets to remain open between California Avenue and Stockdale Highway.</p> <p>At this early stage of the project, it is assumed that all of the above-mentioned design options (Marella Way Overcrossing, Ford Avenue Undercrossing, and La Mirada Drive Overcrossing) would be constructed as part of the project. These crossings would help to maintain community cohesion and connectivity between either side of the neighborhood.</p>

Comment PH-4

PH-4

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15 MS. BENDER: Roberta Bender.

16 THE REPORTER: Could you spell that for me?

17 MS. BENDER: Roberta is Robert with an "a,"

18 B-e-n-d-e-r. And I propose -- I think a cul-de-sac on

19 La Mirada would be helpful because it would save a lot

20 of homes. It would keep -- keep that open from

21 becoming a thoroughfare for so much traffic and

22 pollution and noise level right across people's front

23 yards. So...

24 THE REPORTER: Go ahead.

25 MS. GRESHAM: My name is Vicky Gresham, the

PH-4-1

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Page 2

Response to Comment PH-4

Comment Code	Response
PH-4-1	<p>Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project. As described in the final environmental document (Volume 1, Summary, and Section 2.1.1, Build Alternatives), the Preferred Alternative (Alternative B) includes an overcrossing at La Mirada Drive to help traffic circulation. Sheet 10 for Alternative B shows the overcrossing and can be found in Appendix E of Volume 2.</p> <p>Caltrans has analyzed the benefits associated with minimizing impacts on the remaining neighborhood, costs and maintaining circulation between neighborhood sections that would otherwise be cut off.</p> <p>The proposed overcrossings at La Mirada Drive and Marella Way, as well as the proposed undercrossing at Ford Avenue, would allow three local streets to remain open between California Avenue and Stockdale Highway.</p> <p>At this early stage of the project, it is assumed that all of the above-mentioned design options (Marella Way Overcrossing, Ford Avenue Undercrossing, and La Mirada Drive Overcrossing) would be constructed as part of the project. These crossings would help to maintain community cohesion and connectivity between either side of the neighborhood.</p>

Comment PH-5

PH-5

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THE REPORTER: Go ahead.

MS. GRESHAM: My name is Vicky Gresham, the

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1 last name is G-r-e-s-h-a-m. I live at 4200 La Mirada
2 Drive, and I am opposed to making the freeway go all
3 the way through our neighborhood and would like see it
4 go with the plan to make the cul-de-sac on the end of
5 La Mirada because I feel like it will be safer for our
6 children in the neighborhood. It would bring the
7 traffic down, that it will hold our home values better
8 to be in a cul-de-sac. And, also, they need to put
9 some stop signs while they are at it on Mira Loma. La
10 Mirada turns into Mira Loma. It goes directly to a
11 school. And I'm afraid that it's really unsafe, and we
12 may have more traffic in the the local neighborhood
13 than we have had in the past. I'm all for the
14 cul-de-sac.

PH-5-1

Page 2

PH-5

Centennial Corridor Tiffany 6-11-14.TXT

15 THE REPORTER: what was that?
16 MS. GRESHAM: I said, I'm all for the
17 cul-de-sac.

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Page 3

Response to Comment PH-5

Comment Code	Response
PH-5-1	<p>Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project. As described in the final environmental document (Volume 1, Summary, and Section 2.1.1, Build Alternatives), the Preferred Alternative (Alternative B) includes an overcrossing at La Mirada Drive to help traffic circulation and maintain access connection between the two areas of the community divided by the new freeway.</p> <p>Caltrans has analyzed the benefits associated with minimizing impacts on the remaining neighborhood, costs and maintaining circulation between neighborhood sections that would otherwise be cut off.</p> <p>The proposed overcrossings at La Mirada Drive and Marella Way, as well as the proposed undercrossing at Ford Avenue, would allow three local streets between California Avenue and Stockdale Highway to remain open.</p> <p>The project would help to maintain community cohesion and connectivity between either side of the neighborhood.</p> <p>It is acknowledged that a cul-de-sac option on La Mirada Drive may lessen through traffic along La Mirada; however, vehicular traffic would have to find other means to cross the Alternative B alignment and would travel a circuitous local route, which would increase traffic on other local streets.</p> <p>A request for a stop sign at an intersection must meet the requirements of the four-way stop sign to warrant analysis. Construction of a four-way stop sign at a local street is the responsibility of the city of Bakersfield. Please contact the city of Bakersfield Public Works Department and submit a formal request.</p> <p>It has been expressed in some of the public comments received that the project would result in decreased property values due to various reasons, including temporary construction impacts, permanent construction impacts, and property acquisitions. Real estate market prices are mainly based on comparative sales in the area. Many factors contribute to market values, including location, neighborhood, current real estate sales in the area, school system, crime, taxes, government services, parks/recreation, and features of the home. The Centennial Corridor Project may or may not have an effect on the property values. In addition, Caltrans has found no literature, studies, or evidence that property values would decrease because of the realization of the Centennial Corridor.</p> <p>Past research using case studies on the effects of introducing new highway facilities near residential properties indicates that over the duration of a longer time period, property values will rise after an initial period of downward movement.</p>

Comment PH-6

PH-6

Centennial Corridor Tiffany 6-11-14.TXT

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19 MS. SIMPSON: I'm Darlene Simp- --

20 Simpson, D-a-r-l-e-n-e; Simpson, S-i-m-p-s-o-n. And I

21 just wanted to say I just love the neighborhood. It's

22 such a different kind of a neighborhood, and I would

23 hate to see it all torn up. It's a wonderful place to

24 walk; it's a wonderful place to -- to live, and I

25 really appreciate it. So it's going to be hard trying

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PH-6-1

1 to find another place like this one. So, uhm, that's

2 all I can think of right now, and I just wanted to say

3 I really enjoy being here. It's got the curvy roads,

4 and it's just nice. I guess that's all.

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Response to Comment PH-6

Comment Code	Response
PH-6-1	Your opposition to Alternative B has been noted. Caltrans thanks you for participating in the environmental process for the Centennial Corridor Project.

Chapter 8 Responses to Comments from Native American Tribes

This section provides comments received from Native American tribes. A copy of the draft environmental document was sent to the following Native American Tribes:

- Kawaiisu Tribe
- Tejon Indian Tribe
- Tule River Indian Tribe
- Kitanemuk and Yowlumne Tejon Indians
- Kudzubitcwanap Palap Tribe
- Monache Inter-Tribal Association
- Michahai Wukasachi Band of Eshom Valley
- Chumash Council of Bakersfield
- Kern Valley Indian Councils
- Tubatulabals of Kern County
- Carol A. Pulido
- Santa Rosa Rancheria

One comment was received and is listed below.

Table 8.1 Comment Received from Native American Tribes

Comment Code	Commenter Name	Date Comment Received
NA-1	Colin Rambo, Tribal Historic Preservation Technician, Tejon Indian Tribe	7/7/2014

Comment NA-1

NA-1



July 7, 2014

Jennifer H. Taylor
Office Chief, Central Region
Environmental Southern San Joaquin Valley
855 M Street, Suite 200
Fresno, California 93721

RE: Centennial Corridor Project EIR/EIS

Dear Ms. Taylor

First, please allow me to formally introduce myself. My name is Colin Rambo, and I was recently hired by the Tejon Indian Tribe (the Tribe) for the purpose of establishing their Tribal Historic Preservation Office. Further, the Tribe's Chairperson, Kathryn Montes Morgan, has delegated to me the authority to review and comment on all Tribal Consultation matters related to cultural resources on behalf of the Tribe.

Secondly, thank you for your letter, dated 7 May 2014, inviting the Tribe to comment on the Centennial Corridor Project (Project) EIR/EIS. The Project EIR/EIS states that no prehistoric or ethnohistoric cultural resources were discovered during the cultural resource surveys, but that extended Phase I geoarchaeological testing will be conducted in order to test the subsurface sensitivity model developed for the Project. The Tribe is respectfully requesting to monitor the geoarchaeological testing. Pending the results of the geoarchaeological study, the Tribe may also request to monitor ground-disturbing activities related to the Project. Additionally, the Tribe is now pleased to offer Cultural Resource Sensitivity Training (CRST) courses for projects that include ground disturbance but do not warrant full-time archaeological or Native American cultural monitoring, and would like to offer these services for the Project, and any other Caltrans projects in Kern County (i.e. the Tribe's service area).

NA-1-1

Please feel free to contact me, or have the Caltrans District 6 Native American Liaison, Mandy Marine contact me in regard to the abovementioned requests. Thank you for including the Tribe in the consultation process, and I look forward to working with your office in the future.

Respectfully,

Colin Rambo
Tribal Historic Preservation Technician
Tejon Indian Tribe
colin.rambo@tejontribe.net

1731 Hasti-acres Drive, Suite 108



Bakersfield, California 93309



Office: (661) 834-8566 Fax: (661) 834-8564

Response to Comment NA-1

Comment Code	Response
NA-1-1	<p>The information and recommendation provided in your comment letter, received July 7, 2014, are acknowledged.</p> <p>As discussed in Section 3.1.8 of the final environmental document (Volume 1), in November 2012, an extended Phase I geoarchaeological model was prepared for the project. The Extended Phase 1 Geoarchaeological Report: Stage 1 Geomorphic Sensitivity Study indicated that given the sensitivity of portions of the project area, further identification efforts for archaeological resources were needed to be undertaken for the Preferred Alternative. Prior to finalization of the environmental document, Caltrans conducted Stage 2 of the archaeological sensitivity study to field-check the preliminary buried site geomorphic sensitivity study of areas believed to have high and very high archaeological sensitivity.</p> <p>Prior to conducting the geoarchaeological Stage 2 work, the Tejon Tribe and the Santa Rosa Rancheria Tachi Yokuts were contacted concerning the potential for archaeological monitoring. They delegated the monitoring to the Tribal Archaeological Monitor of the Tule River Indian Reservation who participated in field activities. During the second round of fieldwork to do the coring excavations, the Tule River Indian Tribal Monitor communicated that he did not feel the need to be present based on results of the earlier trenching fieldwork and the limited extent of the coring effort. Although the Cultural Specialist of the Santa Rosa Tachi Yokuts expressed an interest in monitoring the second round of fieldwork, she was not able to provide a monitor during the scheduled fieldwork, which occurred December 2 and 3, 2014. On December 3, 2014, the Stage 2 field work was completed. No cultural features were identified in the field, nor were any artifacts discovered. The subsurface core samples taken in the field are currently undergoing laboratory testing, prior to preparation of the study report. Per Caltrans's policy and in accordance with your request, the Tejon Indian Tribe will be notified of the results of the study.</p> <p>In addition, before starting construction activities in sensitive areas identified in the study results, Caltrans shall contact the Tejon Indian Tribe and other tribes expressing interest to provide them with the opportunity to observe grading activities. If it is determined that any discovered resource(s) meets any of the National Register/California Register criteria, appropriate mitigations measures will be undertaken. Accordingly, a qualified archaeologist retained by Caltrans, as well as Native American representative(s), shall be present at preconstruction conferences; establish areas of archaeological sensitivity that would need archaeological resource surveillance based on data gathered from the field survey and the Extended Phase 1 Geoarchaeological Study (Stages 1 and 2); and establish procedures for temporarily halting or redirecting work to be followed if artifacts or features are discovered.</p> <p>Minimization Measure CI-1 from Section 3.6, Construction Impacts (Volume 1), has been incorporated into the project to address potential discovery of cultural resources, procedures for handling discoveries, and consultation with Caltrans, including the District Cultural Resources and Native American Coordinators.</p>

Chapter 9 Responses to Comments from Elected Officials

This section provides comments received from Elected Officials from the city of Bakersfield. A copy of the draft environmental document was sent to the following elected officials:

- Andy Vidak, U.S. Senator
- Barbara Boxer, U.S. Senator
- Shannon L. Grove, State Assembly 34th District
- Rudy Salas, State Assembly, 32nd District
- Diane Feinstein, U.S. Senator
- Kevin McCarthy, House of Representatives
- Jean Fuller, U.S. Senator
- David Valadao, House of Representatives
- Leticia Perez, Kern County Board of Supervisors
- Mike Maggard, Kern County Board of Supervisors
- Zack Scrivner, Kern County Board of Supervisors
- Mick Gleason, Kern County Board of Supervisors
- David Couch, Kern County Board of Supervisors
- Harvey L. Hall, Mayor of Bakersfield
- Ken Weir, Bakersfield City Council
- Terry Maxwell, Bakersfield City Council
- Willie Rivera, Bakersfield City Council
- Bob Smith, Bakersfield City Council
- Harold Hanson, Bakersfield City Council
- Jacquie Sullivan, Bakersfield City Council
- Russell Johnson, Bakersfield City Council
- Roberta Gafford, City Clerk of Bakersfield

A total of two comment letters were received as summarized below.

Table 9.1 Comments Received from Elected Officials

Comment Code	Commenter Name	Date Comment Received
EO-1	Bob Smith, Councilmember, Ward 4, city of Bakersfield	5/16/2014
EO-2	Terry Maxwell, Councilmember, Ward 2, city of Bakersfield	7/8/2014

Comment EO-1

EO-1

Jennifer H. Taylor
Office Chief, Central Region, Environmental Southern San Joaquin Valley
855 M Street, Suite 200
Fresno California 93721

RE: Centennial Corridor Project, Draft EIR

I believe the Centennial Corridor Project offers an opportunity to greatly improve bicycle access to the existing Class 1 bike path on the Kern River Parkway. By improving bicycle access the project will help reduce air pollution and greenhouse gas emissions. Improving bicycle access will also be consistent with Cal Trans Complete Streets Policy and the Pedestrian and Bicycle guidance of the FHWA.

The City of Bakersfield adopted a Bicycle Transportation Plan in November of 2013. The plan greatly expanded the amount of Family Friendly Bikeways by proposing just over 100 miles of routes which avoid the high traffic and high speed arterials.

The Centennial Corridor Project presents an opportunity to provide another Family Friendly Bikeway that would not be available without the project. The enclosed map shows the route extends from Palm Ave crossing State Route 99 without any on or off ramps then proceeds through the Westpark neighborhood to California Ave. The bicyclist would then need to ride on the arterial streets of California Ave and Mohawk in order to reach the Class 1 bike path and the numerous destinations that can be accessed such as California State University Bakersfield.

The opportunity that is presented by the Centennial Corridor Project is to continue on smaller streets crossing California Ave on Easton Drive and then crossing the canal to Commerce Dr. and Commercial Way. The City of Bakersfield is improving the traffic signal at Commercial Way and Truxtun Ave to add a pedestrian crossing and bicycle access across Truxtun to the Class 1 bike path. Thus when the project is complete a Family Friendly Bicycle Route would be provided from southeast Bakersfield all the way to Southwest Bakersfield.

I am requesting that the Centennial Corridor Project include a bicycle crossing from Easton Dr. to Commerce Dr. over the canal. This would greatly enhance the bicycle network in Bakersfield and therefore help reduce air pollution and greenhouse gas emissions.

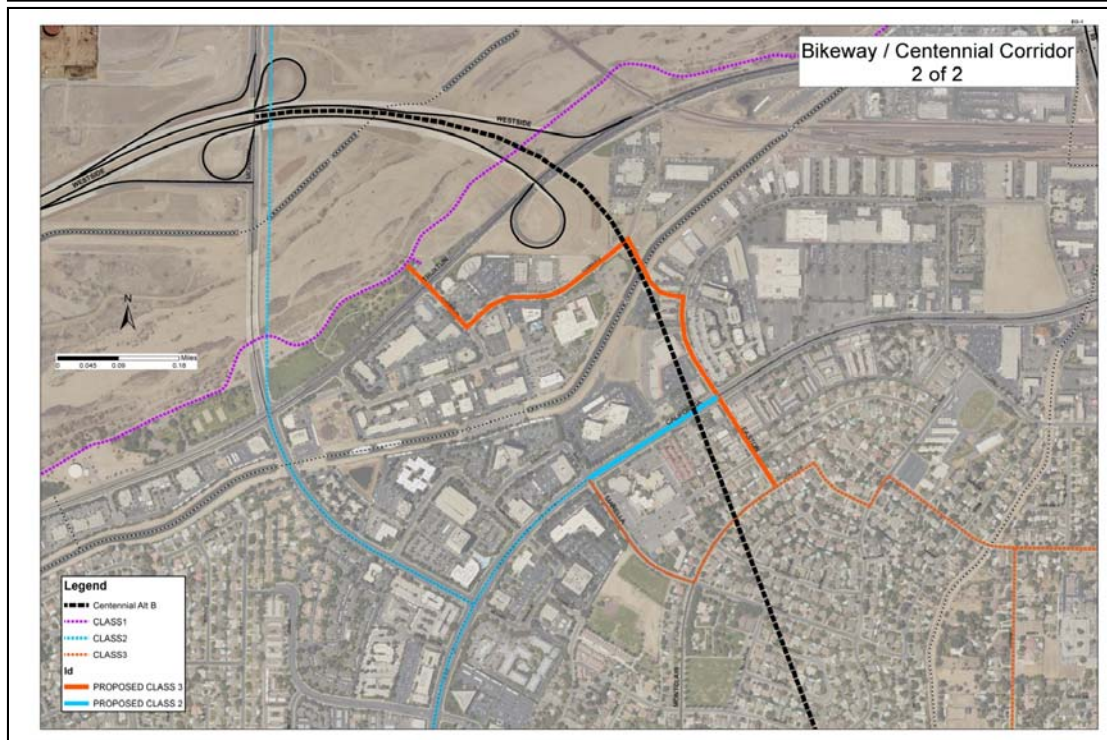
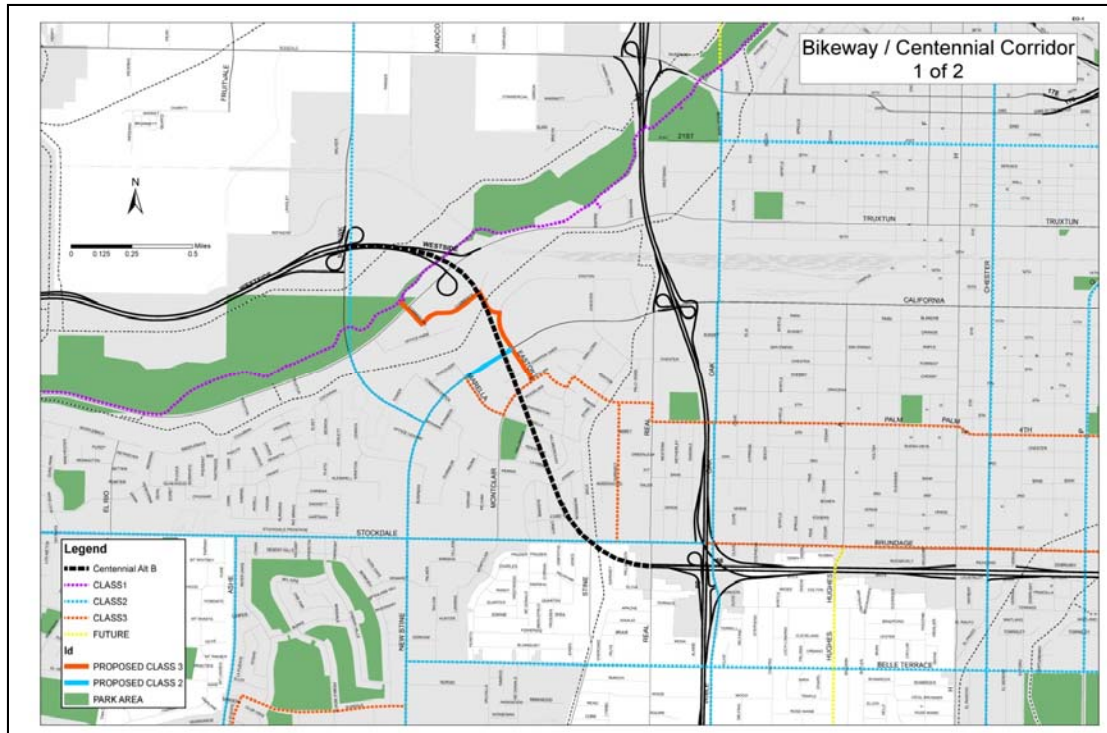
Thank you



Bob Smith
Councilmember ward 4 City of Bakersfield

11421 Queensbury Dr Bakersfield, 93312
bobsmith727@me.com
661-330-1404

EO-1-1



Response to Comment EO-1

Comment Code	Response
EO-1-1	<p>Caltrans recognizes the positive effects of nonmotorized transportation, such as bicycles, on air quality and the environment. By providing a bicycle connection within the Centennial Corridor Project area, it is possible that an improved bicycle connection to an existing Class I and Class II bicycle facility could increase bicycle usage and reduce vehicle trips within the area. Caltrans has decided to include a bicycle and pedestrian connection between California Avenue and Commerce Drive as part of the project. This decision was made in response to public requests for a bicycle connection spanning over the Carrier Canal since the Carrier Canal offers an existing bridge crossing that provides pedestrian and bicycle connectivity with the route chosen. Access to Easton Drive via a bicycle connection to California Avenue will be implemented a short distance away from the original request. This improvement would enhance bicycle and pedestrian connectivity and would result in minimal effects to the environment during construction.</p> <p>In addition, the project would be consistent with the city of Bakersfield's Bicycle Transportation Plan (November 2013).</p> <p>Caltrans in coordination with the city of Bakersfield will consider the feasibility of constructing a Class I bike path connection from the Westpark neighborhood to the existing Class I bike path located north of the Carrier Canal.</p>

Comments EO-2

EO-2

Dear Sirs,

This letter is being written to question the Draft EIR for the Centennial Corridor Project in Bakersfield California. As I have many questions about the Project, I will break these up into Compliance issues with the Projects design, how the Exceptions were approved and legal considerations, Project design's not considered or rejected and suggestions for compliance, and items specifically from the Draft EIR. I have several references in my Appendix section to which I will be referring.

Section 1- Project Design

The Highway Design Manual for the State of California in Chapter 501.1 clearly states that the design requirement for crossing freeways are to have a 2 mile buffer zone where no off or on ramps may exist (Appendix A). This part of the Spacing section is Boldfaced and according to the Design Manual the Boldface type specifies that this requirement is a mandatory standard (Appendix B).

The Ming Ave. interchange is well within this 2 mile zone. The California Ave. interchange is within this 2 mile zone. The Chester Ave./H St. interchange is within the 2 mile zone. These are clear violations of this Mandatory Standard. Please explain how 3 clear violations of this design requirement will affect the flow of traffic, affect the interweaving of traffic and why this rule exists. After the reasons have been delineated, please explain what the effect of one exception means to the interchange, two exceptions means to the interchange, and three exceptions means to the interchange. Please discuss how the increase of exceptions increases the complexity of proper function. Please give examples from the past 5 years where this number of exceptions was granted.

EO-2-1

In the Highway Design Manual for the State of California in chapter 502.3- Freeway to Freeway Interchanges, it is stated that all interchanges "must" have all 8 basic movements (Appendix C). The only exception is where there is a managed lane or park and ride lots exist. The present design for this interchange is missing two of the 8 basic movements. It is missing the Southbound 99 to the Westbound Centennial Corridor (future 58 or I-40) and the Eastbound Future 58/I-40 to the Northbound 99. The Right of way acquisition in this area is not an issue because there is plenty of space that the interchanges would require. Please explain why this rule exists and the traffic flow will be inhibited by this exception. Please explain how an exception was obtained, what argument was used, and examples from the last 5 years where two exceptions were granted.

There appears to be 5 distinct exceptions for the proposed interchange that is the subject of this EIR.

EO-2

Please explain what effect one exception traditionally creates for the interchange between two freeways and how the addition of 4 more exceptions complicates the equations. Does the addition of each exception add to the complexity linearly or exponentially? Please explain through the use of at least 3 traffic modeling formulas.

EO-2-1

This corridor is expected to have an unusually high number of Trailer trucks and Semi-trucks. Is there an increase in likely accidents due to the tight space in which cars and Semi-trucks will be merging? If this large number of exceptions which have been designed into this project results in injury or death, who will be the responsible party? Where in the EIR is this environmental impact addressed? If it was not addressed, why and under what reasoning would significant, and what is termed "mandatory", design exceptions not be considered to have an environmental impact?

EO-2-2

EO-2

Section 2

I have reviewed the Project Development Procedures Manual, Chapter 9 and Chapter 21- Exceptions to Design Standards. (Appendix D) I have a few questions as to how this procedure has been applied here as well as in the past.

Chapter 9 refers to Public Representation not associated with CALTRANS or any elected official. Who was contacted from the public? Please describe how you have complied with all of the requirements of Chapter 9.

How often are exceptions denied?

Have the exceptions in this EIR requested ever been either approved or denied in the past 5 years? If so, please explain.

In this EIR there are 5 exceptions requested. Are those exceptions considered separately or as a whole? Please explain.

Have 5 exceptions to mandatory design standards from the Highway Design Manual been approved for a project that covers such a short distance been approved in the last 5 years? If so, please explain the purpose of the mandatory design requirements if they can be ignored by an established procedure.

Is there a requirement that any and all persons that have an interest or object to this request for exceptions are to be informed of the meetings by the state and federal agencies reviewing such requests? If not, please explain why. Are the minutes of these meetings available?

Was there any effort to inform the public in this case about the application for exceptions?

At these meetings are both the pros and cons to the proposal presented?

EO-2-3

EO-2

Section 3

I would like to present a highway design plan and would ask why it was never considered as an alternative. It follows all current rules and I will give examples of current freeway systems in the State of California with similar designs.

At the base of the ridge route the Northbound I-5 splits into the 99 freeway and the I-5, both headed northbound. Both of these Freeways traverse the San Joaquin Valley and reconnect in North Sacramento. I would propose to rename the 99 freeway I-995. This is based on similar designs for the I-5 and I-405 which separate north of Los Angeles and reconnect south of Los Angeles. A similar design exists for the I-5 and I-805 in San Diego, the Bay area has a series of freeways starting with the I-580 off of the I-5 and eventually reconnects as the I-80 in Sacramento. The I-580 has several I-X80's that traverse the area providing a series of loops and connections in that area. (See Appendix E)

It is proposed the SR-58 will become I-40. The argument against merging the SR-58 with the 99 freeway for about 4 miles up to 7th Standard Rd. is because according to the design manual, the two freeways would have to stay separated rather than merged up to 7th Standard Rd. I will note that in the 2000/2002 Masterplan for transportation in Kern County, 7th Standard Rd. was to become the primary nexus between the 99 Freeway and I-5, not the Westside parkway. The Westside Parkway connection to I-5 was to be a project sometime in the future (Appendix F). This was supported by traffic counts, connection plans with the other freeways in the area, and very low impact to the environment. If a freeway were to be constructed where 7th Standard Rd. now exists between the 99 Freeway and I-5, it would not remove one house. Right-of-way expenses would be minimal and not have the detrimental environmental impact on homeowners and businesses that the Project being proposed does.

EO-2-4

I propose that the SR-58 east of Bakersfield be renamed the I-40 and that it terminate at its juncture with the newly named I-995. The access to Real Rd. would be eliminated. The freeway between this point and 7th Standard road would be widened to 5 or 6 lanes in each direction. This would make this part of the I-995 one of the widest freeway sections in the State of California. I would also reconstruct 7th Standard road into a 4-lane auxiliary interstate freeway between the I-995 and I-5 and name it the I-450.

I can support the termination of the I-40 at its junction with I-995 with examples from our current Caltrans freeway system. The I-710 and the I-110 both terminate into the I-10 in Los Angeles. The I-605 terminates/starts between the I-210 and the I-5 on the east side of Los Angeles. In San Diego, I-8

EO-2

terminates into I-5, as does I-15. There are so many examples in the Bay area, I will refer you to Appendix D, but I count about 8 examples of Interstates terminating into other Interstates. I have already covered the split off and rejoinders for the Bay Area, Los Angeles and San Diego and those are further examples of interstates terminating into other interstates. At these terminations there is little to no accommodation for increased traffic by the existence of extra lanes. The Bakersfield area has had little to no growth over the past 6 years. 2008, six years ago, is when the current project was proposed and the projected population growth was forecasted. The growth which projected the future needs was obviously inaccurate. At this point, based on population history, six lanes in this section will more than accommodate the expected volume of traffic.

The last element of this Regional Traffic Model is the creation of I-450 (currently 7th Standard Rd.) between I-995 and I-5. This is a 21 mile stretch of unobstructed road. This plan would require about four overpasses to be created, the off-ramp from the I-995 would need to be changed and the interchange at I-5 reconstructed. All of these requirements would be substantially below the current price tag to complete the proposed Project that is the subject of this EIR. As support for this proposal, please refer to Appendix E and Appendix G. The interstate system currently has many examples of auxiliary connectors that are part of the Interstate and have an Interstate designation. These connectors have three numbers to them and they exist throughout the state connecting primary interstates to primary interstates, primary interstates to other auxiliary interstates, and auxiliary interstates to other auxiliary interstates. This proposal connects a primary Interstate to an auxiliary interstate. The distance of 21 miles would not be the shortest distance for an auxiliary interstate. Appendix G shows that I-105, I-110, I-205, I-305, I-380, I-780, and I-980 are all shorter in distance than the proposed I-450. In addition, I-710 could be added to the list.

EO-2-4

This proposal would have honored the Highway Design Manual, created the regional East/West transportation corridor, and would damage no homes in the process.

Was this design which is outlined above and is not very complicated, since it is prevalent in this state, ever considered?

Would this design have a smaller Environmental Impact than the current Project?

What would be the cost differential between what I have proposed to attain the same goals as the present project? Please evaluate this calculation based on 1) starting from scratch, as if this was the preferred proposal, and 2) what the cost would be to abandon the present Project and substitute this proposal. Please note; I propose that the current interchange where the Westbound 58 and 99 meet be retained, the freeway between 58 intersection and the 7th Standard Exit be widened to five or six lanes, the intersection of 7th Standard Rd. be reconstructed for a Westbound Freeway without any stopping,

EO-2

7th Standard Rd. be turned into a four-lane auxiliary interstate freeway to I-5, and the interchange at I-5 be improved. My point is, why weren't similar alternatives addressed? | EO-2-4

What is the environmental impact of the current Project versus this proposal in that that the Project in this EIR does not create a freeway between I-5 and the 99 freeway and the proposal does complete this important goal? Please evaluate the impact on the Air Quality, which is an important environmental impact and consideration, between these two designs. | EO-2-5

What process must Caltrans go through to rename the 99 Freeway and construct and name 7th Standard Rd. as an auxiliary Interstate highway? How long does this process take? | EO-2-6

Please evaluate the traffic patterns for SR 46, Lerdo Hwy, 7th Standard Rd and SR 58 to the traffic on Stockdale Hwy. Show how the current traffic warrants the construction of the Project in this EIR. Please keep in mind that projected volume does not warrant stop signs and stop lights, only current traffic volumes can be considered. If you choose to use projections, then project the traffic patterns that would apply to what I have proposed and its impact on environmental impacts (air quality and economic impact). | EO-2-7

What are the comparative right of way expenses and number of businesses and homes affected by the Project in this EIR and this proposal? | EO-2-8

There are two designs for a regional transportation plan and one does not require any exceptions and the other requires 5 exceptions and deviations from mandatory standards in the Highway Design Manual. How is a decision made under those conditions? | EO-2-9

If there is a lower Environmental Impact with this proposal when compared to the Project, does it become impossible to claim that this EIR has NO environmental impact? | EO-2-10

EO-2

Section 4

The Draft EIR for the Centennial Corridor project has been based on certain projections. These projections are the basis of the studies that were used to justify the need for this Project

First are the population projections. On page 13 it is stated that the population of the City of Bakersfield will be 848,487 by the year 2035. It is further stated that the population growth between the years 2000 to 2009 was at 2.5%. If the population was 333,719 (Appendix H) in the year 2009 and the population continued to grow at 2.5% the population by 2035 would be 633,000. The population growth between the years 2007 and 2013 was only 1.78% (Appendix H), going from 323,213 to 359,221. Using 1.78% as the annual growth for the next 22 years, which is consistent with the last six years, the population of Bakersfield would be 527,000. In order for the population of Bakersfield to grow to 848,487 by 2035 based on the population in 2009, the yearly growth would have to be 3.5% annually. Since there is data for 2013 to work from, the population of Bakersfield would now have to grow at 4.0% annually to reach 848,487.

EO-2-11

I would like to know how the calculation was made to determine this population number of 848,487. Has there ever been a 26 year period where population growth in the City of Bakersfield has been 3.5% annually or a period of 22 years where the growth has been 4.0%? In what industries will we see growth to drive and sustain 848,487 citizens and what will the median income be for this population?

In a study from 1986 the population growth for Bakersfield was forecasted for geographic areas of the city. The accuracy of the total growth seems to be accurate, although I have not researched the numbers to certify they are correct. The geographic forecasts were very inaccurate. Forecasts for growth in the northwest were substantially low, in the northeast too high, and in all sectors projections were off by a large enough amount that the standard deviation would be in double digits. From the journal called **Transportation** (Appendix I) there was a recent article on the inaccuracy of traffic modeling in general. If the population estimates have been inflated as it appears they have, the modeling was based on those numbers, and the modeling is at best only 40% accurate, isn't the conclusions you have based this EIR on completely unreliable? The article I have referenced focuses on the underestimation of costs and the overzealous projections of traffic. Please comment as to how this EIR is not subject to these errors. Please include the accuracy of population estimates from this EIR in that analysis. The book **Gridlock**, by R. O'toole advocates that our infrastructure is adequate based on how our cars will basically drive themselves in the future. Today we see commercials on TV for cars that are smart enough to brake when the driver is not paying attention. This will reduce the number of accidents substantially. The next step is for cars to drive themselves using a GPS computerization on-board of every car. Cars will travel much closer to each other and the capacity of most roads will attain a "C" or better LOS. The "Google Map" GPS systems are forecast to be in most new models within the next 8 years. The modeling studies are designed to take into account the needs 20 years into the future. Was the addition of GPS self-drive cars taken into account for this EIR? Please keep in mind that the generation life cycle

EO-2-12

EO-2

for 95% of all cars is 8 years. This generation life cycle would imply that 16 years from today 95% of all cars will “drive themselves”, reducing the number of accidents and increasing road capacity (these cars will drive closer to each other due to the communication capability of one car to the other and because the reason we drive so far apart from each other and have so much gridlock is because people have much slower response time compared to a computer and we tend to brake when it isn’t necessary).

EO-2-12

We are currently in a severe drought. The depth of our ground wells which supply traditionally 40% of our water needs are at historically deep levels. Has the EIR looked at the sustainability and environmental impact this population would have on the water supply? Can this area with its limited availability of water sustain this large of a population? How often does the State of California experience severe droughts? If this Project is completed and it drives the increase of population to 848,487, will it have a negative effect on the environment when it comes to water resources? If water is diverted to the population away from farming will this have a negative effect on the economic environment locally and worldwide? Kern County is essential to the food supply and helps to feed the world.

EO-2-13

On pages 50, 51, and 52 there is some discussion of Recent and Planned Local Development Projects. Table 3.1 shows 7 current areas of growth. The first two stated developments, Bakersfield Commons and Stockdale Ranch may have some impact on the current Project. The remaining developments will not impact the Project. The Saco Ranch Commercial Center is truly supportive of 7th Standard Rd as the auxiliary interstate. There are currently two projects that show where the true growth for Bakersfield is. Tejon Ranch is opening a Retail Center and the Hoskins Rd. Overpass project. The greatest amount of growth for Bakersfield is and will remain to the south. Please comment whether the growth to the south was included in this EIR.

EO-2-14

KERNCOG since 1986 has had many transportation plans it has endorsed. In 1986 the forecasts for where growth would occur were very inaccurate. In this document there are many examples where the Transportation Plan has been altered and there are references to at least six different plans starting in 1994. Why does there seem to be an inability for KERNCOG to develop a plan and stick with it? I believe the answer is that the plans are not being driven by the data and common sense. What were the reasons for abandoning the Masterplan of 2000/2002? It was endorsed and approved by all effected parties. Up until the federal government directing what the project has to look like and how the federal money has to be spent, the beltway system delineated in the 2000/2002 Masterplan supported many growth possibilities as well as solve existing shortcomings with the local transportation system. How does this Project help to form a Beltway system in the Bakersfield area? Wouldn’t a beltway system similar to the 2000/2002 Masterplan have a much more positive environmental impact all the way around? If I am not mistaken, it seems like the Project is taking one of the minor, future and almost last components, of the earlier plan and making it the foundation of the transportation needs of this area. Doesn’t this Project delay and fracture the true needs in Bakersfield for a Beltway system? The northern portion, which would have turned 7th Standard Rd into a freeway, can’t be completed and so the endpoints for the crosstown and western sections of the beltway will have an endpoint instead of a circular pattern. Knowing the elements of the 2000/2002 Masterplan, why was the new overpass on

EO-2-15

EO-2

Golden State Highway over Garces Circle not made into six lanes? This mistake will be more obvious with the approval and the building of the Hageman Flyover.

What is the current LOS on I-5 between the junction of 99 and the junction of I-580? How will the ultimate goal of the extension of I-40 to I-5 affect the LOS of I-5? Does it fit within the criterion where an improvement to any part of the highway system must be sustainable for a minimum of 20 years, especially when federal money is being used? How much of the current traffic that moves up the 99 Freeway in Bakersfield and uses Rosedale highway, 7th Standard Road, Lerdo Highway, and the 46 to connect to destinations in Kern County and I-5, will be using the new connection out through Stockdale Highway? How much traffic on the Westbound 58 that currently uses the 99 Freeway to travel up to Central California and Northern California will be using the new corridor to Stockdale Highway and then travel up I-5? If this traffic, especially truck traffic, begins to use this new route instead of the 99 freeway what will the effect be on Air Quality? All Truck traffic coming off the Westbound 58 using the 99 Freeway has no stops. The new corridor would slow down traffic because the posted speed limit where the Westpark freeway becomes Stockdale Highway is less than the 99 Freeway. There are also several (at least two) stop signs on Stockdale Highway which requires traffic to come to a complete stop and then accelerate to the posted speed in this corridor. What affect does this have on Air Quality and what is the Environmental Impact?

EO-2-16

On page it is stated that the close spacing of the interchanges at Ming Ave and California Ave in relation to the connection of 99 Freeway and SR 58 causes congestion. Part of the Project that has been approved and is moving forward is the improvements to Ming Ave separate from this EIR. Not considered are the improvements to the 58 as it is widened separate from this EIR. Widening the 99 Freeway between the SR 58 interchange and 7th Standard Rd which is the route that a significant amount of future traffic, especially truck traffic, will use due to the large industrial area in Shafter that is expanding tremendously is not considered in this EIR. Why? Why is the EIR not advocating the closure of either the Ming Ave or California Ave off ramps? The California Ave exit in either direction would have to be considered very dangerous. What is the environmental impact to not close this exit since the opportunity has been presented? Where will the liability lay if there is a significant increase in traffic accidents for these exits as more people use (as is forecasted) this corridor?

EO-2-17

On page 5 there is a discussion of the Tier 1 and Tier 2 environmental Impact statements. It is stated that KERNCOG evaluated previous transportation studies. Where is the 2000/2002 County of Kern Masterplan which was adopted and endorsed by the County of Kern, the City of Bakersfield and KERNCOG? The 2001 Route 58 Adoption Project Tier 1 Environmental Impact Statement/Environmental Impact Report is not part of the Masterplan that was certified in 2002. When was the public given notice and an opportunity to comment on the obvious differences between the two plans?

EO-2-18

On page 6 in the purpose section there is no mention about the congestion on 99 Freeway and that the Project is a regional transportation project. Why? The purpose also documents a desire to consider

EO-2-19

EO-2

continuity and traffic relief along State Route 58 in Metropolitan Bakersfield. The studies for the traffic that continues through Metropolitan Bakersfield on SR 58 (Rosedale Highway) to I-5 indicate that this through traffic is minimal. Most of the traffic is either local, moves up and down the 99 Freeway, and continuing traffic currently uses 7th Standard Rd, Lerdo Highway, and SR 46. Bakersfield has as its major industries oil and agriculture. Both of these industries require many trucks. The EIR states several times about the high number of trucks in the area. Most of the trucks using and needing access to Rosedale Highway are destination bound. Just one of the Pipe companies on Rosedale Highway has 200 trucks going in and out of it daily. The connection on Rosedale Highway to the 99 Freeway will remain the primary route for this company. Part of the reason for Rosedale continuing to be their primary route for many companies is due to the absence of a northbound connection between the eastbound 58 and northbound 99. Please explain if Air quality improvements for this Projects EIR were based on improvement in the ability for trucks to connect to I-5 through the bypassing of Bakersfield? Would those assumptions be incorrect if the local truck traffic does not change significantly? If the local truck traffic does not improve but more Regional Trucks travel through Bakersfield would that have a negative environmental impact on Air Quality?

EO-2-19

Pages 8-14 discuss the level of service (LOS) for the project area. The area truck traffic is referred to but not expanded upon. Where is the current truck traffic headed if in this area "Truck traffic accounts for 27 percent of the total traffic in Kern County? This is three times the state average of 9 percent." (Page 8). It further states that "At a regional scale, the project would promote economic growth and interregional/intraregional trade by improving linkages between existing segments of the State Highway system through Bakersfield." Do you have any proof of this statement? The greatest growth for truck traffic will be on 7th Standard Rd because of the vision of Shafter. This project only improves SR 58's continuity. It has nothing that states it will improve linkages. If improving linkages to the Highway system to promote interregional/intraregional economic growth were the purpose and goal, wouldn't you have to know where the truck traffic is, where its destination is and how the Project will or will not change it? This would be an important environmental consideration for its impact.

EO-2-20

On page 13 there is a discussion of "A Traffic Study Report for the Centennial Corridor Project. It states that in 2008 there are 15 key intersections with a worse than D LOS. Many of these intersections were improved, maybe by the opening of the Westside Parkway, because in 2018 without the Project being built, the number of key intersections with a worse than D LOS drops to 12. It could also be because Rosedale Highway will be widened by then. I do not understand how in Table 1.1 the Coffee Rd/Rosedale Highway continues to deteriorate while all other intersections along Rosedale Highway improve. What effect will widening of Rosedale Highway have on traffic? By the year 2038 the "No-Build Alternative" it is stated that the number of Intersections with a worse than D LOS in the Project Area increases to 22. This section is also where the population increase is discussed. The population is to grow 250% from baseline in 2009, but the number of intersections with a worse than D LOS increases to only 142% of baseline. That seems very inconsistent. I have discussed the possible inaccuracy of the population forecast and I would like to know what effect a lower population forecast does to these numbers.

EO-2-21

EO-2

Table 1.2 is a review of the LOS along 99 Freeway and SR 58 for 2008, 2018 and 2038 if the “No Build” alternative is chosen. In the year 2008 there is not one on/off ramp that has a worse than D LOS. In 2018 there will be three on/off ramps (although not both AM and PM) that fall below the D LOS and by 2038 there are 11 out of 49 on/off ramps. Due to the documented inaccuracies seen in traffic modeling and forecasting, is it likely the forecast for 2038 is inaccurate? Most importantly, the conjecture that the amount of traffic moving northbound on 99 Freeway from westbound 58 is a concern seems by this report to be unfounded. The LOS for this off/on ramp is never worse than a D LOS. Most of the “Critically Poor” LOS exists at Ming Ave. The interchange at Ming Ave and the 99 Freeway are in violation of the Mandatory interchange buffer zones in the California Highway Design Manual if the Centennial Corridor is built. Please explain how such a “problem intersection already” was not an impediment in the approval of the Design for this Project? Is this creating an unnecessary safety hazard? The EIR states that the Ming Ave and the California Ave off ramps are less than 1 mile from the 99 Freeway and SR 58 interchange. Could you also explain why for the westbound 58 off ramp to the southbound 99 is a “B” or “C” LOS in 2008, 2018, and in the AM for 2038 but is at “E” for the PM in 2038? This is also true for the section between the “H St” on-ramp and the northbound Freeway 99 when traveling west on SR 58. How would widening the 99 Freeway to six lanes from the SR 58 northbound to past 7th Standard Rd improve the LOS? This table states that the LOS for the Eastbound SR 58 from the 99 Freeway is presently a “C” and will remain a “C” through 2038. How does this justify the expense and environmental impact for the Centennial Corridor Project? Some of the LOS worse than D exists due to the Real Rd juncture, is it possible to eliminate that part of the SR 58?

EO-2-22

The stated purpose of this Project is to provide route continuity for SR 58. It is now well known that SR 58 is going to be changed to I-40. I-40 is a major interstate and it implies that the purpose for this Project would change to specifically a regional interstate system and not a local continuity problem to be solved. If the purpose has changed, doesn't that imply that this EIR is not on point and because it did not study the true impacts of the Project, by law, must be redone?

EO-2-23

Section 1.2.3 Independent Utility and Logical Termini is what I will end with. The project limits are stated to be 17.4 and 18.5 miles. This is incorrect since the project is only now from the end of the Westside Parkway to the Junction of 99 freeway and SR 58. This is a distance of about 1.7 miles. Due to the extreme expense, negative environmental impact on residents and property, and all alternatives to achieve the projects stated purpose not being explored, it is impossible to come to the conclusion that point one is satisfied. Does this Project have “Independent Utility”? The answer is “No” based on what is stated. “(2) projects are usable and a reasonable use of funds even if no additional transportation improvements in the area are made” is on page 20 of the Draft EIR. This Project is in no way a “reasonable use of funds”. The projected expense to the Federal Government and the City of Bakersfield is in the Hundreds of Millions of dollars. Bakersfield will need to borrow over \$250,000,000 if the estimates are accurate. The payback amount over 30 years will total close to \$600,000,000 based on current favorable lending rates. Those figures are a “best scenario” and may be much higher in the long run. How can that be “reasonable”? With at least one other alternative which is less expensive and has a potentially smaller impact environmentally, Independent Utility cannot be asserted.

EO-2-24

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In conclusion, it does not appear that this Draft EIR has adequately addressed impacts to the community or relevant and reasonable alternatives. I ask for it to be redone with many of the recommendations provided in this communication. | EO-2-25

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Maxwell", with a large, stylized loop at the end.

Terry Maxwell, Ward 2- City Councilman

The City Of Bakersfield

EO-2

APPENDIX A

EO-2

HIGHWAY DESIGN MANUAL

500-1

May 7, 2012

CHAPTER 500 TRAFFIC INTERCHANGES

Topic 501 - General

Index 501.1 - Concepts

A traffic interchange is a combination of ramps and grade separations at the junction of two or more highways for the purpose of reducing or eliminating traffic conflicts, to improve safety, and increase traffic capacity. Crossing conflicts are reduced by grade separations. Turning conflicts are either eliminated or minimized, depending upon the type of interchange design.

501.2 Warrants

All connections to freeways are by traffic interchanges. An interchange or separation may be warranted as part of an expressway (or in special cases at the junction of two non-access controlled highways), to improve safety or eliminate a bottleneck, or where topography does not lend itself to the construction of an intersection.

501.3 Spacing

The minimum interchange spacing shall be one mile in urban areas, two miles in rural areas, and two miles between freeway-to-freeway interchanges and other interchanges. The minimum interchange spacing on Interstates outside of a Transportation Management Area shall be three miles. These minimum distances are measured between centerlines of adjacent intersecting roadways. To improve operations of closely spaced interchanges the use of auxiliary lanes, grade separated ramps, collector distributor roads, and/or ramp metering may be warranted.

The standards contained within this Index apply to:

- New interchanges.
- Modifications to existing interchanges including access control revisions for new ramps or the relocation/elimination of existing ramps.

- Projects to increase mainline capacity when existing interchanges do not meet interchange spacing requirements.

See Index 504.7 for additional technical requirements related to interchange spacing. Procedures and documentation requirements are provided in PDPM Chapter 27 and must be fulfilled prior to requesting an exception to the above spacing standard. See the FHWA publication "Interstate System Access Informational Guide"

For the application of interchange spacing on Interstates, the one mile urban interchange spacing standard applies to urbanized areas with populations greater than 200,000 known as Transportation Management Areas. See Index 81.3 for mapping and information on Transportation Management Areas.

Topic 502 - Interchange Types

502.1 General

The selection of an interchange type and its design are influenced by many factors including the following: speed, volume, and composition of traffic to be served (e.g., trucks, vehicles, bicycles, and pedestrians), number of intersecting legs, and arrangement of the local street system (e.g., traffic control devices, topography, right of way controls), local planning, proximity of adjacent interchanges, community impact, and cost.

The cost of a structure is a considerable investment where the life of a structure may be 50 to 100 years, far beyond that of the project traffic study projections. New or significant modifications to interchanges should take into consideration future needs of the system; the ultimate configuration for the freeway and the potential for local land development well beyond the 20-year traffic study. Choose an interchange type that is compatible with or can easily be modified to accommodate the future growth of the system.

Even though interchanges are designed to fit specific conditions and controls, it is desirable that the pattern of interchange ramps along a freeway follow some degree of consistency. It is frequently desirable to rearrange portions of the local street system in connection with freeway construction in

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APPENDIX B

The design standards used for any project should equal or exceed the minimum given in the Manual to the maximum extent feasible, taking into account costs (initial and life-cycle), traffic volumes, traffic and safety benefits, right of way, socio-economic and environmental impacts, maintenance, etc. Because design standards have evolved over many years, many existing highways do not conform fully to current standards. It is not intended that current manual standards be applied retroactively to all existing State highways; such is neither warranted nor economically feasible. However, when warranted, upgrading of existing roadway features such as guardrail, lighting, superelevation, roadbed width, etc., should be considered, either as independent projects or as part of larger projects. A record of the decision not to upgrade the existing non-standard mandatory or advisory features shall be provided through the exception process (See Index 82.2).

This manual does not address temporary construction features. It is recognized that the construction conditions encountered are so diverse and variable that it is not practical to set geometric criteria. Guidance for use of traffic control devices for temporary construction zones can be found in Part 6 – Temporary Traffic Control of the California Manual on Uniform Traffic Control Devices (California MUTCD). Guidance for the engineering of pavements in temporary construction zones is available in Index 612.6. In this manual, design standards and guidance are categorized in order of importance in development of a State highway system. See Index 82.4 for other mandatory procedural requirements.

- (2) *Controlling Criteria.* The FHWA has designated thirteen controlling criteria for selection of design standards of primary importance for highway safety, listed as follows: design speed, lane width, shoulder width, bridge width, horizontal alignment, vertical alignment, grade, stopping sight distance, cross slope, superelevation, horizontal clearance, vertical clearance and bridge structural

capacity. All but the last of these criteria are also designated as geometric criteria.

The design standards related to the 12 geometric criteria are designated as mandatory standards in this manual (see Index 82.1(2) and Table 82.1A).

- (3) *Mandatory Standards.* Mandatory design standards are those considered most essential to achievement of overall design objectives. Many pertain to requirements of law or regulations such as those embodied in the FHWA's 13 controlling criteria (see above). Mandatory standards use the word "shall" and are printed in **Boldface** type (see Table 82.1A).
- (4) *Advisory Standards.* Advisory design standards are important also, but allow greater flexibility in application to accommodate design constraints or be compatible with local conditions on resurfacing or rehabilitation projects. Advisory standards use the word "should" and are indicated by Underlining (see Table 82.1B).
- (5) *Decision Requiring Other Approvals.* There are design criteria decisions that are not bold or underlined text which require specific approvals from individuals to whom such decisions have been delegated. These individuals include, but are not limited to, District Directors, Traffic Liaisons, Design Coordinators or their combination as specified in this manual. These decisions should be documented as the individual approving desires.
- (6) *Permissive Standards.* All standards other than mandatory, advisory, or decisions requiring other approvals, whether indicated by the use of "should", "may", or "can" are permissive.
- (7) *Other.* In addition to the design standards in this manual, see Index 82.7 for general information on the Department's traffic engineering policy, standards, practices and study warrants.

Caution must be exercised when using other Caltrans publications which provide guidelines for the design of highway facilities,

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APPENDIX C

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May 7, 2012

HIGHWAY DESIGN MANUAL

preferable if future extension of the crossroads is expected.

- (e) Single Point Interchange (SPI)--The Type L-13 is a concept which essentially combines two separate diamond ramp intersections into one large at-grade intersection. It is also known as an urban interchange. Detailed information on SPI's is provided in the Single Point Interchange Planning, Design and Operational Guidelines (SPI Guidelines), originally issued by memorandum on June 15, 2001. Per the SPI Guidelines, the Design Coordinator and the Headquarters Traffic Liaison must approve the SPI concept.

Type L-13 requires approximately the same right of way as the compact diamond. However, the construction cost is substantially higher due to the structure requirements. The capacity of the L-13 can exceed that of a compact diamond if long signal times can be provided and left turning volumes are balanced.

This additional capacity may be offset if nearby intersection queues interfere with weaving and storage between intersections. The disadvantages of the L-13 are: 1) future expansion of the interchange is extremely difficult; 2) stage construction for retrofit situations is costly; 3) long structure spans require higher than normal profiles and deeper structure depths; and 4) poor bicycle and pedestrian circulation.

- (f) Other Types of Interchanges--New or experimental interchanges must have the Design Coordinator and Traffic Liaison's concurrence before selection. Concurrence may require additional studies and documentation.

502.3 Freeway-to-Freeway Interchanges

- (1) *General.* The function of the freeway-to-freeway interchange is to link freeway segments together so as to provide the highest level of service in terms of mobility. Parameters such as cost, environment, community values, traffic volumes, route continuity, driver expectation and safety should all be considered. Route continuity, providing for the designated route to continue as the through movement through an

interchange, reduces lane changes, simplifies signing, and reduces driver confusion.

Interstate routes shall maintain route continuity. Where both the designated route and heavier traffic volume route are present, the interchange configuration shall keep the designated route to the left through the interchange.

(2) *Design Considerations.*

- (a) Cost--The differential cost between interchange types is often significant. A cost-effective approach will tend to assure that an interchange is neither over nor under designed. Decisions as to the relative values of the previously mentioned parameters must be consistent with decisions reached on adjacent main line freeways.

- (b) System Balance--The freeway-to-freeway interchange is a critical link in the total freeway system. The level of traffic service provided will have impact upon the mobility and overall effectiveness of the entire roadway system. For instance, traffic patterns will adjust to avoid repetitive bottlenecks, and to the greatest degree possible, to temporary closures, accidents, etc. The freeway-to-freeway interchange should provide flexibility to respond to these needs so as to maximize the cost effectiveness of the total system.

- (c) Provide for all Traffic Movements--All interchanges must provide for each of the eight basic movements (or four basic movements in the case of a three-legged interchange), except in the most extreme circumstances. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access for managed lanes (e.g., transit, HOVs, HOT lanes) or park and ride lots. Partial interchanges usually have undesirable operational characteristics. If circumstances exist where a partial interchange is considered appropriate as an initial phase improvement, then commitments need to be included in the request to accommodate

the ultimate design. These commitments may include purchasing the right of way required during the initial phase improvements.

- (d) Local Traffic Service--In metropolitan areas a freeway-to-freeway interchange is usually superimposed over an existing street system. Local and through traffic requirements are often in conflict.

Combinations of local and freeway-to-freeway interchanges can result in designs that are both costly and so complex that the important design concepts of simplicity and consistency are compromised. Therefore, alternate plans separating local and freeway-to-freeway interchanges should be fully explored. Less than desirable local interchange spacing may result; however, this may be compensated for by upgrading the adjacent local interchanges and street system.

Local traffic service interchanges should not be located within freeway-to-freeway interchanges unless geometric standards and level of service will be substantially maintained.

- (e) Alignment--It is not considered practical to establish fixed freeway-to-freeway interchange alignment standards. An interchange must be designed to fit into its environment. Alignment is often controlled by external factors such as terrain, buildings, street patterns, route adoptions, and community value considerations. Normally, loops have radii in the range of 150 feet to 200 feet and direct connections should have minimum radii of 850 feet. Larger radii may be proper in situations where the skew or other site conditions will result in minimal increased costs. Direct connection radii of at least 1,150 feet are desirable from a traffic operational standpoint. High alignment and sight distance standards should be provided where possible.

Drivers have been conditioned to expect a certain standard of excellence on California freeways. The designer's

challenge is to provide the highest possible standards consistent with cost and level of service.

- (3) Types. Several freeway-to-freeway interchange design configurations are shown on Figure 502.3. Many combinations and variations may be formed from these basic interchange types.

- (a) Four-Level-Interchange--Direct connections are appropriate in lieu of loops when required by traffic demands or other specific site conditions. The Type F-1 interchange with all direct connections provides the maximum in mobility and safety. However, the high costs associated with this design require that the benefits be fully substantiated.

The Type F-1 Alternative "A" interchange utilizes a single divergence ramp for traffic bound for the other freeway; then provides a secondary directional split. Each entrance ramp on a Type F-1A interchange is provided separately. The advantages of the Type F-1A are: 1) reduced driver confusion since there is only one exit to the other freeway, and 2) operations at the entrance may be improved since the ramps merge with the mainline one at a time.

The Type F-1 Alternative "B" interchange provides separate directional exit ramps and then merges the entering traffic into a single ramp before converging with the mainline. Since the Type F-1B combines traffic from two ramps before entering the freeway, it is important to verify that adequate weaving capacity is provided beyond the entrance. Separating the directional split of exiting traffic reduces the volume to each of the two ramps and therefore may improve the level of service of the weave section prior to the exit.

Design for a four-level interchange may combine the configuration of the Type F1-A and F1-B interchange to best suit the conditions at a given location.

- (b) Combination Interchanges--The three-quadrant cloverleaf, Type F-2, with one direct connection may be necessary where

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APPENDIX D

CHAPTER 21 – Exceptions to Design Standards

ARTICLE 1 General

Responsibility

Headquarters Division of Design (DOD) establishes and supports the consistent application of highway design standards (in accordance with the *Highway Design Manual*) to ensure optimal safety for the traveling public and those who work to construct, operate, and maintain the State Highway System.

Documentation

The purpose of the fact sheet for exceptions to design standards (also known as a design exception fact sheet or fact sheet) is to document engineering decisions leading to the approval of each exception to a design standard. It is essential that adequate records are prepared and preserved to document such decisions and approvals. This documentation is necessary for Caltrans to maintain design immunity.

Identification of Nonstandard Design Features

The registered civil engineer in responsible charge of the work (as defined by California Business and Professions Code, Section 6703), or other licensed professional practicing within the scope of their license, must identify both existing and proposed nonstandard design features. Determination of nonstandard design features should be initiated early in the project development process.

Applicability

The phrase “mandatory design standards” refers to the mandatory standards outlined in *Highway Design Manual*, Table 82.1A, while the phrase “advisory design standards” refers to the advisory standards outlined in *Highway Design Manual*, Table 82.1B. Headquarters Division of Design is responsible for the mandatory design standards except as noted in Table 82.1A. The exceptions include the

Part 3 – Specific Project Development Procedures

mandatory standards for which responsibility has been delegated to the District Directors and the mandatory standards in *Highway Design Manual* Chapters 600 through 670 that are the responsibility of the State Pavement Engineer. Additionally, the responsibility for all advisory standards has been delegated to the District Directors. See Article 4 for conditions on delegation to District Directors. Article 2, Exceptions to Mandatory Design Standards, is applicable to the mandatory standards which Headquarters Division of Design (delegated to the Design Coordinator) is the approval authority.

Dispute Resolution Process

Occasionally, there may be disagreements between the district and the Design Coordinator on the proper course of action. When disagreements cannot be resolved, the following dispute resolution process must be used:

- Pre-elevation: Every effort should be made to resolve disputes between the district and Headquarters Division of Design, at the lowest possible level.
 - District design office chief discusses issue with Design Coordinator.
 - District/region design manager discusses with district design office chief, staff, and project engineer to determine facts.
 - District/region design manager discusses with Design Coordinator.
 - Design Coordinator and district/region design manager may discuss with other district staff or Headquarters Division of Design staff.
 - District/region design manager and Design Coordinator discuss with District Director and other district managers.
- Formal elevation: If there is agreement at the district level and all attempts between the district and Design Coordinator fail to result in concurrence from the Design Coordinator;
 - District Director prepares written justification to Headquarters Division of Design Chief that includes signature of the district/region design manager.
 - Headquarters Division of Design Chief will:
 1. Attempt to resolve issue. If no resolution;
 2. Appoint a three member team of subject matter experts to review and make a recommendation to Headquarters Division of Design Chief.
 3. Consider the recommendations of the team and prepare a decision to either support or deny District Director's request.
 4. If Headquarters Division of Design Chief supports the District Director's request, the Headquarters Division of Design Chief will sign as the approval authority.

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Chapter 21 – Exceptions to Design Standards
Article 1 – General

- District Director can appeal to Deputy Director Project Delivery (Chief Engineer) with no further appeals.

Definitions

Design standards risk assessment – is a list of design standards that will likely not be met for each alternative and the probability of approval for each potential exception to a design standard. An example of the design standards risk assessment format can be seen in the project report template associated with Appendix K – Preparation Guidelines for Project Report.

Geometrically feasible – means project alternatives are designed in accordance with the *Highway Design Manual* and specifically, alternatives meet the mandatory and advisory standards in the *Highway Design Manual* related to geometric design or have approved fact sheets for exceptions to mandatory and advisory standards.

Distribution and Filing

Once final approval is obtained, the project engineer must send one copy of the approved fact sheet to the Division of Design Division Chief, Attention: Design Exception. Include copies of all correspondence between the district and Federal Highway Administration (FHWA) pertaining to the request for design exception approval.

The signed original fact sheet and when applicable, the FHWA approval letter, must be filed in the project history file. A backup copy should be filed in a separate permanent file or in the district's central file.

Part 3 – Specific Project Development Procedures

Figure 21-1 Requirements for Fact Sheet Approval and Distribution to FHWA

	Interstate		Non-Interstate		
	HPP	NHS	HPP	NHS	Non-NHS
Mandatory Design Standard (FHWA 13 Controlling Criteria)*	1) CT DOD Approval 2) FHWA Approval		1) CT DOD Approval 2) Distribute Copy of Completed Fact Sheet to FHWA	CT DOD Approval for State Highways Local Agency Approval for Non-State Highways	
Mandatory Design Standard (Vertical Clearance on Rural and Singular Route System)*	1) CT DOD Approval 2) FHWA Approval 3) SDDCTEA Concurrence Facilitated by FHWA 4) FHWA Final Approval		N/A		
Mandatory Design Standard (Caltrans only)*	1) CT DOD Approval 2) Distribute Copy of Completed Fact Sheet to FHWA	CT DOD Approval	1) CT DOD Approval 2) Distribute Copy of Completed Fact Sheet to FHWA	CT DOD Approval for State Highways Local Agency Approval for Non-State Highways	
Advisory Design Standard#	1) CT DD Approval 2) Distribute Copy of Completed Fact Sheet to FHWA	CT DD Approval	1) CT DD Approval 2) Distribute Copy of Completed Fact Sheet to FHWA	CT DD Approval for State Highways Local Agency Approval for Non-State Highways	

CT – Department of Transportation (Caltrans)

DD – District Director

DOD – Division of Design

FHWA – Federal Highway Administration

HPP – High Profile Projects

NHS – National Highway System

SDDCTEA – Surface Deployment and Distribution Command Transportation Engineering Agency (Department of Defense)

* – For mandatory design standards where the approval is delegated to the District Director, all requirements remain the same except that “CT DOD Approval” is replaced by “CT DD Approval.” Also see the following note:

– See Article 4 for conditions on delegation to District Directors

ARTICLE 2 Exceptions to Mandatory Design Standards

Consultation Requirements

Potential nonstandard design features must be discussed with the Design Coordinator as soon as the need for a design exception is identified.

Depending on the level of FHWA oversight, potential design exceptions may need to be discussed with the appropriate FHWA transportation engineer. See sub-article “Approvals” near the end of this article.

Requests for Design Exceptions

Once the Design Coordinator determines that there may be sufficient justification to proceed with the evaluation of a design exception, the following steps must be taken:

1. Prepare the draft fact sheet in conformance with the outline in Appendix BB – Fact Sheets for Exceptions to Mandatory Design Standards.
2. Submit the draft fact sheet to the Design Coordinator for review.
3. Resolve all comments to the satisfaction of the Design Coordinator.
4. Circulate the fact sheet for approval signatures. See sub-article “Approvals” near the end of this article.

Requests to perpetuate existing nonstandard design features within a project’s work limits will be made in accordance with the above procedures, except when the Design Coordinator determines that a different form of documentation is more appropriate.

Integration with Project Development Process

District approval of project initiation documents (PIDs) and project approval documents must follow the conditions outlined in this sub-article.

The Design Coordinator determines if there is sufficient justification to approve mandatory design exceptions and is the approval authority for altering the standard practice as outlined in this sub-article, as context warrants.

If the Design Coordinator identifies significant changes to the conditions supporting the exceptions to design standards when the fact sheet is submitted for approval, the Design Coordinator may determine that the identified changes invalidate the previous justification that supported their approvability.

Part 3 – Specific Project Development Procedures

Standard Practice

Each alternative must be geometrically feasible in all project initiation and project approval documents except for certain situations as provided for in this sub-article.

A discussion of design standards must be included in all project initiation and project approval documents. For alternatives meeting all standards, a statement of this fact should be included in the report. When alternatives propose new nonstandard design features or perpetuate existing nonstandard design features, the report must include: a brief description of the nonstandard features; discussion of issues related to each nonstandard feature; and a reference to all approved fact sheets that includes the approval authority and date.

The design standards risk assessment table is the method to document deferral of fact sheet approval. It must be included in the appropriate report and the risks included in the project's risk register. The project engineer lists the design standards that are likely to not be met for each alternative. The Design Coordinator provides the rating and justification for the design standards risk assessment and summary language for the discussion in the project development report.

Project Initiation Document

For projects with only one Build alternative, fact sheets must be approved before approval of the PID, except when the PID is a project study report - project development support (PSR-PDS).

It is assumed that projects with multiple Build alternatives will use the PSR-PDS process. However, in the rare case where another type of PID is prepared for a project with multiple Build alternatives, it is expected that one alternative will be geometrically feasible and the other alternatives use the design standards risk assessment when design standards are not met.

Project Study Report - Project Development Support Only

Fact sheets are not required for the PSR-PDS project initiation document. However, there must be a discussion whether each alternative proposes new nonstandard design features or perpetuates existing nonstandard design features. Alternatives should be discussed with the Design Coordinator early in the project initiation process to identify potential nonstandard design features. Alternatives with insufficient information for fact sheet development must go through a design

standards risk assessment to indicate a level of risk for conceptual acceptability of the alternative.

Draft Project Report

For projects with only one Build alternative, fact sheets must be approved before approval of the draft project report (DPR) or any other type report serving the purpose as a DPR.

For projects with multiple Build alternatives, the alternatives with proposed nonstandard design features must go through a design standards risk assessment to indicate the level of risk associated with the probability of approval for each potential exception to a design standard. Based on the associated risks and consideration of any previously approved fact sheets, the District Director can then decide if approval of fact sheets should be pursued for specific alternatives to level the engineering risk prior to approval of the DPR.

Project Report

Fact sheets must be approved before approval of the project report (PR) or any other type of project approval document.

Plans Specifications & Estimates

If the need for nonstandard design features is determined after approval of the project approval document, fact sheets should be approved prior to milestone M377 PS&E to DOE and must be approved before milestone M380 Project PS&E.

Construction

During the construction phase of a project, it is the resident engineer's responsibility to ensure that proposed changes to the design meet design standards or have approved fact sheets for nonstandard features. It is the project engineer's responsibility to review proposed changes and prepare and secure approval of fact sheets for proposed nonstandard features. Nonstandard features discovered during construction must have approved fact sheets before the feature is constructed. Design exceptions will not be considered for nonstandard features after they are constructed. If nonstandard features are constructed based on the contract plans, the project engineer is responsible for resolving the issue so the features meet standards. If nonstandard features are constructed not based on the contract plans, the resident engineer is responsible for resolving the issue so the features meet standards. When issues arise,

Part 3 – Specific Project Development Procedures

all appropriate parties need to be involved so timely decisions can be made to minimize the impact to the construction schedule.

Miscellaneous Requirements

- When nonstandard design features are proposed by an encroachment permit applicant, fact sheets are prepared by the applicant's registered civil engineer. The Caltrans functional unit responsible for preparation of the permit engineering evaluation report (PEER) will facilitate the coordination with the Design Coordinator for draft fact sheet review. If a PEER is not required, the fact sheet processing will be facilitated by the functional unit assisting the district permit engineer.
- A single fact sheet may contain multiple design exceptions.
- Nonstandard design features identified after approval of a fact sheet require the preparation of a supplemental fact sheet. The prior approved nonstandard design features should be enumerated in the supplemental fact sheet.
- Fact sheets should not be attached to any project initiation document, project approval document, or engineering report. They should be summarized and referenced in appropriate reports.
- Approval of design exceptions for highway improvement projects on the National Highway System and the Interstate System is a federal administration action that requires compliance with the National Environmental Policy Act (NEPA). Caltrans has developed a "blanket" Categorical Exclusion for NEPA compliance when the approval of design exceptions is the only federal administration action on the project. See the memorandum from the Division of Environmental Analysis for more information.
- Commitments for future work should not be made in design exception fact sheets. If a commitment must be made, a follow-up project is to be programmed and Caltrans must have the authority to define the scope of the project to include the commitment. Additionally, the justification for the commitment must be discussed in the appropriate project development report. The district is responsible for minimizing future commitments, monitoring those commitments, determining if prior commitments were made, and documenting commitments made in design exception fact sheets.

Approvals

Signature, Coversheet Format

The fact sheet outline shown in Appendix BB provides a recommended format for the signature/cover sheet. The format may be varied to suit each district's organization; however, each fact sheet must comply with the requirements of Chapter 2, Section 9.

Caltrans Approval

The responsibility for approval of all exceptions to mandatory design standards on the State Highway System and local facilities within State right-of-way rests with the Headquarters Division of Design Division Chief and has been delegated to the Design Coordinator.

Caltrans has delegated the responsibility for approval of design exceptions for local federal-aid projects, not on the State Highway System, to the public works director or the city or county engineer if the public works director is not a registered civil engineer.

FHWA Approval

Formal FHWA approval is required for design exceptions to the 13 controlling criteria when the project is on the Interstate, regardless of funding sources. See Chapter 80 – Application of Design Standards of the *Highway Design Manual* and the *Joint Stewardship Oversight Agreement between Caltrans and FHWA* for more information.

Separate FHWA design exception approval is also required for any project that does not provide or maintain a minimum vertical clearance over the Department of Defense Rural and Single Interstate Route system. Additionally, design exceptions for vertical clearances over any Interstate route that is not a rural Interstate or a single routing in an urban area will require special notification. See Article 3 for more information.

Requests for FHWA approval should be made by letter, addressed to the FHWA division administrator, and signed by the District Director or a District Division Chief. Requests must be accompanied by a copy of the approved fact sheet.

ARTICLE 3 Exceptions to Vertical Clearance on Department of Defense Rural and Single Interstate Route System

General

In coordination with the Department of Defense, the FHWA has identified a subset of the Interstate System composed of all rural Interstates and a single routing in urban

Part 3 – Specific Project Development Procedures

areas that would meet the most urgent national defense needs. Those routes shown and described in *Highway Design Manual* Figure 309.2 and Table 309.2B are given special attention in regard to minimum vertical clearance.

The FHWA has made a commitment to the Department of Defense to maintain a 16-foot minimum vertical clearance where it already exists and to upgrade clearances less than 16 feet as rapidly as is practical. Any project on this system (including resurfacing, restoration, & rehabilitation [RRR] projects) will be closely scrutinized to ensure compliance with this vertical clearance standard; exceptions to this standard will be difficult to obtain, and will be subject to additional federal review.

Documentation Requirements

Exceptions for vertical clearances of less than 16 feet over any portion of this system must be processed separately in the form of a design exception fact sheet. See [Appendix BB](#) for the appropriate format.

The requests will receive internal reviews within Caltrans and the FHWA Division Office. The FHWA Division Office must obtain concurrence from the Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA) of the Department of Defense prior to approval. Due to this additional and lengthy step, potential requests for design exceptions must be identified and discussed with the Design Coordinator as early as possible.

Additionally, exceptions for vertical clearances of less than 16 feet over any Interstate route that is not a rural Interstate or a single routing in an urban area will require FHWA and Surface Deployment and Distribution Command Transportation Engineering Agency notification.

Wherever possible, vertical clearances should continue to be designed to comply with the Caltrans standards, as described in the *Highway Design Manual*.

It is the responsibility of the project engineer to submit the fact sheet to the FHWA Division Office after approval has been obtained from the Design Coordinator. The transmittal should note whether or not a fact sheet for additional nonstandard design features on the proposed project is anticipated.

Once final approval is obtained from FHWA, the project engineer must send one copy of the approved fact sheet to the Headquarters Division of Design Division

Chief, Attention: Design Exception. Include copies of all correspondence between the district and FHWA pertaining to the request for design exception approval.

ARTICLE 4 Exceptions to Delegated Mandatory Standards and Advisory Design Standards

Authority

Approval of exceptions to some mandatory design standards, as outlined in *Highway Design Manual* Table 82.1A, has been delegated to the District Directors. Also, approval of all exceptions to advisory design standards has been delegated to the District Directors. If the District Director is not a registered civil engineer, written delegation to the district or region manager whose responsibilities include the design function is required.

Documentation

Each district is responsible for formalizing its own procedures for reviewing, documenting, and approving exceptions to delegated mandatory design standards and advisory design standards. The district process should be similar to the process outlined in Article 2 and the fact sheet should cover the same type of project data and justification as that required for the mandatory design standards fact sheet; see Appendix BB. The district may combine the delegated mandatory design standards and advisory design standards into a single fact sheet.

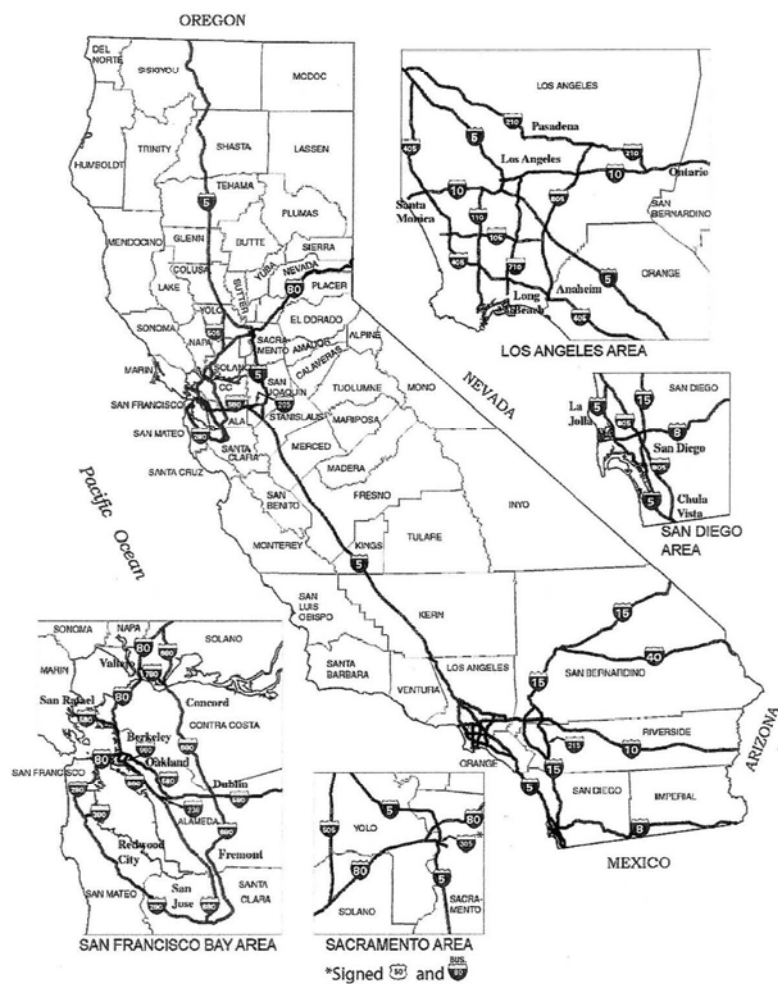
EO-2

APPENDIX E

HIGHWAY DESIGN MANUAL

September 1, 2006

Figure 21.1
Interstate Highway System
in California



EO-2

APPENDIX F

EO-2

CHAPTER III - CIRCULATION ELEMENT - STREETS

- A proliferation of driveways and traffic signals on arterials.
- Through traffic in residential neighborhoods.
- Unattractive streets which lack adequate landscaping.

OVERVIEW OF CIRCULATION PLAN

A Circulation Element has been devised to avoid the congestion that would result from buildout of the General Plan. Upgrades and extensions are planned for the freeway and arterial systems as described below. Figure III-3 shows the ultimate street system for metropolitan Bakersfield. Right-of-way should be reserved whenever possible for the ultimate freeway system.

FREEWAYS

Seven new freeways are planned; the Crosstown Freeway, the Westside Parkway, the West Beltway, the South Beltway, the East Beltway, as well as a new alignment for State Route 58. These future freeway corridors are shown conceptually in Figure III-3. Specific Plan Lines must be adopted for the corridors which have not been adopted, to assist in right-of-way preservation. If permanent structures could be avoided within these corridors, future freeway construction would be simpler and less expensive.

The Crosstown Freeway (also called the Centennial Corridor) would extend from State Route 178 near Baker Street, around the south side of downtown Bakersfield, to State Route 99. The State Route 178 Corridor Study, prepared jointly by KernCOG, the City of Bakersfield, and Caltrans, recommended this freeway alignment. This alignment was also recommended in the Bakersfield Systems Study conducted jointly by KernCOG, the City of Bakersfield, Kern County, and Caltrans.

The Westside Parkway is a continuation of the Crosstown Freeway extending westerly across State Route 99 along the north side of the Kern River to Interstate 5. The first phase of this freeway would only extend westerly to Stockdale Highway, west of Renfro Road. A Specific Plan Line has been adopted by the City of Bakersfield and Kern County for this first phase. The remaining section to Interstate 5 would be constructed in a later phase. The alignment of the Westside Parkway was recommended in the Bakersfield System Study.

*Do need
for
24th St.
widening*

The Crosstown Freeway and the Westside Parkway would provide necessary capacity for east-west travel and relieve congestion on State Route 178 (24th Street Corridor), State Route 58 (Rosedale Highway), California Avenue, and other existing east-west routes.

The West Beltway would link State Route 99 from north Bakersfield with Interstate 5 at the South Beltway, passing through the western portion of metropolitan Bakersfield. The County has adopted portions of the alignment for the West Beltway as a Specific Plan Line. This freeway would provide a bypass and thus relief to State Route 99 and provide an important link across the Kern River from southwest Bakersfield to the Westside Parkway.

The South Beltway extends from State Route 58 around southeast Bakersfield to Interstate 5, near State Route 119 (Taft Highway). This corridor would aid local circulation, as well as provide a bypass of State Route 58 through the City for regional and interstate trips. A

EO-2

CHAPTER III - CIRCULATION ELEMENT - STREETS

recommended corridor has been adopted by the City of Bakersfield and is shown in Figure III-3. The County of Kern is studying this corridor, as well as alternatives at this time. One such alternative is also shown in Figure III-3.

The East Beltway is shown in Figure III-3 in the area of Comanche Drive and connecting State Route 178 to State Route 58 (connecting to the South Beltway). This corridor has not been studied and may need to be lengthened to extend to an alternate South Beltway.

A new alignment of State Route 58 has been recommended in the Bakersfield Systems Study and is shown in Figure III-3. This corridor would extend northerly from existing State Route 58 near Washington Avenue, to the Union Pacific Railroad tracks, then northwesterly to State Route 99. It would then parallel State Route 99 to north of Seventh Standard Road, then turn westerly to Interstate 5.

This corridor would provide congestion relief to State Route 99 in central Bakersfield, as well as provide a continuous State Route 58 freeway corridor to Interstate 5. Caltrans has not adopted this corridor at this time.

A new alignment for State Route 178 is proposed from near future Vineland Road northeasterly to Rancheria Road. This corridor would provide a new route to the Lake Isabella area which would be more direct and wider than the existing road through the Kern River Canyon.

✓ Upgrading existing freeways would also be necessary. This would include the widening of State Route 178 from Fairfax Road to Alfred Harrell Highway and widening the existing State Route 58 freeway from State Route 99 to Cottonwood Road. These improvements would eliminate areas of spot congestion.

Done

ARTERIALS

Several new arterials and arterial extensions are planned. Generally, the plan calls for widening of existing substandard arterials to the full 110 feet where possible with six travel lanes (four in unincorporated areas) and the extension of the arterial system into the new growth areas. In some areas, the newly-extended arterials would not need to have all four or six travel lanes constructed. The full right-of-way width should be reserved, however, to allow for future expansion. New arterial crossings of the Kern River are called for at Allen Road, Oak Street, Mohawk Road, and Fairfax Road (to China Grade Loop). Arterials are generally spaced at one-mile intervals on section lines throughout the developed area except where topography or other unique features warrant a different pattern.

COLLECTORS

In accordance with existing street patterns in Bakersfield, the plan calls for collector streets (four travel lanes in 90 feet of right-of-way) in a grid pattern on mid-section lines. This pattern is deviated from where physical constraints are present, where collectors are not needed, or where existing development precludes the grid pattern of collector streets.

The objective of the planned street system is to accommodate planned land development without traffic congestion. All new streets and freeways are projected to operate at Level of Service C or better. On streets where the existing level of service is below "C", special

EO-2

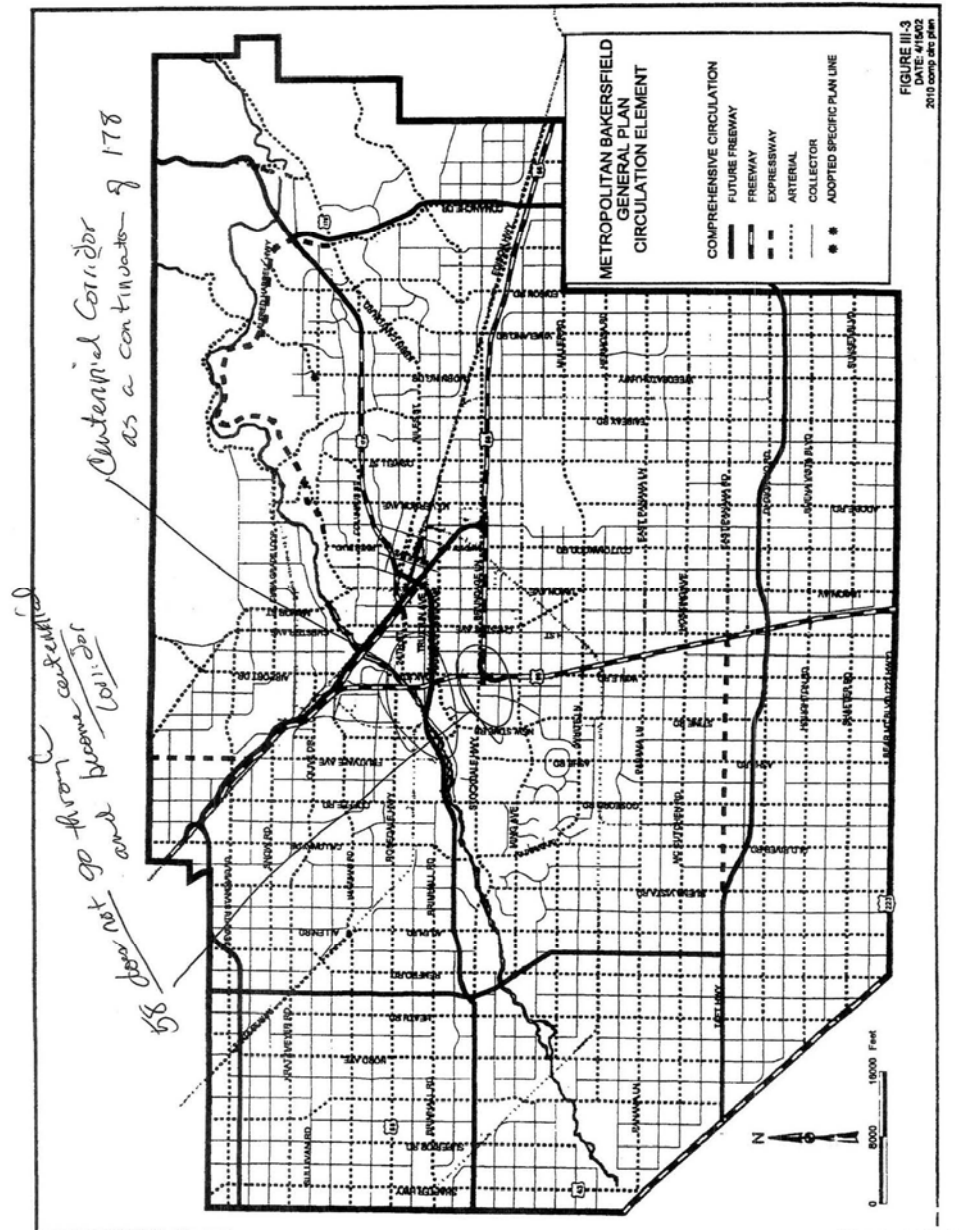


FIGURE III-3
CENTENNIAL CORRIDOR
2010 STATE OF CALIFORNIA

EO-2

APPENDIX G

California Highways (www.cahighways.org): Interstate Highwa...Page 6 of 28

EO-2

The following summarizes California's chargeable Interstate mileage:

Route	Description	Miles	Miles Per FHWA Log
I-5	International Boundary near Tijuana, Mexico to the Oregon state line near Ashland, Oregon	797.0	796.53
I-8	I-5 in San Diego to the Arizona state line near Yuma, Arizona	170.0	169.92
I-10	Santa Monica to I-5 in Los Angeles and from I-5 in Los Angeles to the Arizona state line near Blythe	240.9	242.54
I-15	I-8 in San Diego to the Nevada state line near Las Vegas, Nevada	287.3	287.26
I-40	I-15 in Barstow to the Arizona state line near Kingman, Arizona	154.6	154.61
I-80	First Street in San Francisco to the Nevada state line near Reno, Nevada	202.2	199.24
I-105	Route 1 (Sepulveda Blvd) at the Los Angeles International Airport to I-605 *: I-105 includes 7.0 "Howard-Cramer" miles.	*17.3	17.32
I-110	Route 47 in San Pedro to I-10 in Los Angeles	20.5	20.43
I-205	I-580 W of Tracy to I-5 E of Tracy	13.0	12.97
I-210	I-5 near Tunnel Station to I-10 near Pomona	48.6	48.72
I-280	I-680 in San Jose to Sixth Street in San Francisco	57.1	57.22
I-305	I-80 W of Sacramento to Route 99 in Sacramento. (Signed as US 50)	5.3	8.44
I-380	I-280 S of San Francisco to the San Francisco International Airport	3.3	3.30
I-405	I-5 near El Toro to I-5 near Tunnel Station	72.4	72.15
I-505	I-80 near Vacaville to I-5 near Dunnigan	33.0	32.98
I-580	Vicinity of Castro Street in Richmond to I-80 in Albany, and from I-80 in Oakland to I-5 near Tracy	68.4	67.83

<http://www.cahighways.org/itypes.html>

7/3/2014

California Highways (www.cahighways.org): Interstate Highwa...Page 7 of 28

EO-2

<u>I-605</u>	<u>I-405</u> near Seal Beach to <u>I-210</u> near Azusa	27.4	27.40
<u>I-680</u>	<u>I-280</u> in San Jose to <u>I-780</u> in Benicia	58.0	58.02
<u>I-780</u>	<u>I-80</u> in Vallejo to <u>I-680</u> in Benicia	6.5	6.50
<u>I-805</u>	<u>I-5</u> S of San Diego to <u>I-5</u> N of San Diego	28.0	28.02
<u>I-980</u>	<u>I-880</u> in Oakland to S of the San Pablo undercrossing	0.8	1.03
TOTAL CHARGABLE MILEAGE (includes 7.0 "Howard-Cramer" miles)		2,311.5	2312.93

The following is a history of routes submitted for inclusion as chargeable miles in the Interstate system. Information and maps of the original Interstate proposals may be found at <http://www.roadfan.com/intreg.html#yellowbk>. Note that these dates are based on those shown in the Caltrans history of Interstate submissions. They may correspond to initial submission dates, or dates the basic route was approved, but not necessarily the number.

• **Routes submitted June 27, 1945**

Current Route #	Route Description	Route Status	Numbering History	
<u>I-5</u> ¹	Mexican border to Oregon state line (via Route 99) Westside Freeway Relocation: May 1957	Approved 8/7/1947	14-Aug-1957	<u>I-5</u> , <u>I-5E</u> Tentatively Approved
			08-Nov-1957	Proposed as <u>I-11</u>
			07-Aug-1958	Back to <u>I-5</u>
			10-Nov-1958	Approved as <u>I-5</u> , <u>I-5E</u> (Sacramento)
<u>I-8</u> ²	<u>I-5</u> , San Diego to Arizona state line	Approved 8/7/1947		<u>I-8</u> Tentatively Approved

<http://www.cahighways.org/itypes.html>

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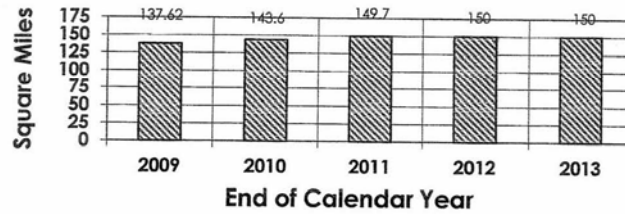
APPENDIX H

EO-2

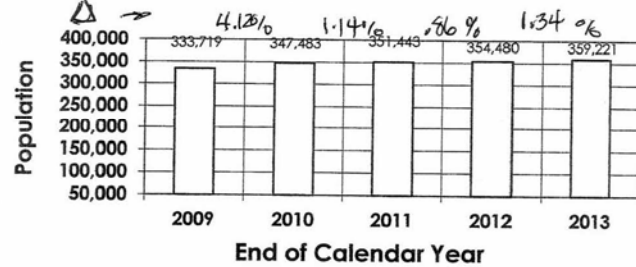
CITY OF BAKERSFIELD

FISCAL YEAR 2014-15

City Square Miles

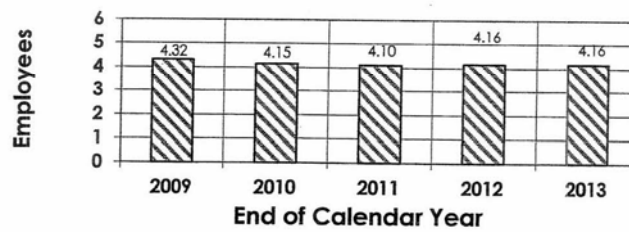


Annual Population Growth



Ave Δ
1.78%

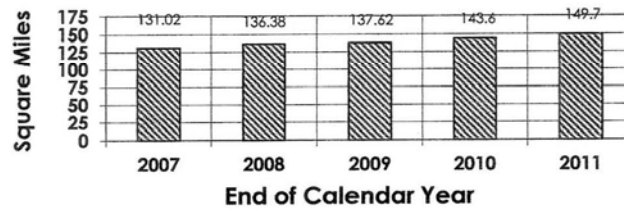
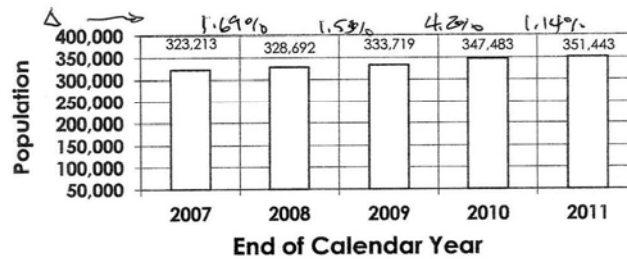
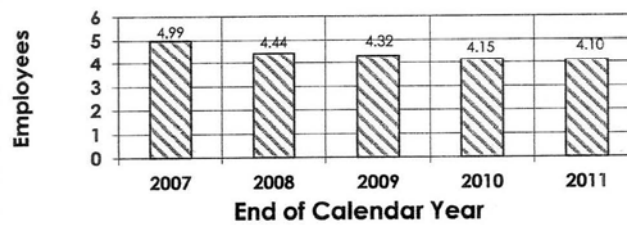
City Employees per 1,000 Population



EO-2

CITY OF BAKERSFIELD

FISCAL YEAR 2012-13

City Square Miles**Annual Population Growth****City Employees per 1,000 Population**

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 Transportation
 November 2013, Volume 40, Issue 6, pp 1133-1157

Hubris or humility? Accuracy issues for the next 50 years of travel demand modeling

Abstract

This study reviews the 50-year history of travel demand forecasting models, concentrating on their accuracy and relevance for public decision-making. Only a few studies of model accuracy have been performed, but they find that the likely inaccuracy in the 20-year forecast of major road projects is $\pm 30\%$ at minimum, with some estimates as high as $\pm 40\text{--}50\%$ over even shorter time horizons. There is a significant tendency to over-estimate traffic and underestimate costs, particularly for toll roads. Forecasts of transit costs and ridership are even more uncertain and also significantly optimistic. The greatest knowledge gap in US travel demand modeling is the unknown accuracy of US urban road traffic forecasts. Modeling weaknesses leading to these problems (non-behavioral content, inaccuracy of inputs and key assumptions, policy insensitivity, and excessive complexity) are identified. In addition, the institutional and political environments that encourage optimism bias and low risk assessment in forecasts are also reviewed. Major institutional factors, particularly low local funding matches and competitive grants, confound scenario modeling efforts and dampen the hope that technical modeling improvements alone can improve forecasting accuracy. The fundamental problems are not technical but institutional: high non-local funding shares for large projects warp local perceptions of project benefit versus costs, leading to both input errors and political pressure to fund projects. To deal with these issues, the paper outlines two different approaches. The first, termed 'hubris', proposes a multi-decade effort to substantially improve model forecasting accuracy over time by monitoring performance and improving data, methods and understanding of travel, but also by deliberately modifying the institutional arrangements that lead to optimism bias. The second, termed 'humility', proposes to openly quantify and recognize the inherent uncertainty in travel demand forecasts and deliberately reduce their influence on project decision-making. However to be successful either approach would require monitoring and reporting accuracy, standards for modeling and forecasting, greater model transparency, educational initiatives, coordinated research, strengthened ethics and reduction of non-local funding ratios so that localities have more at stake.



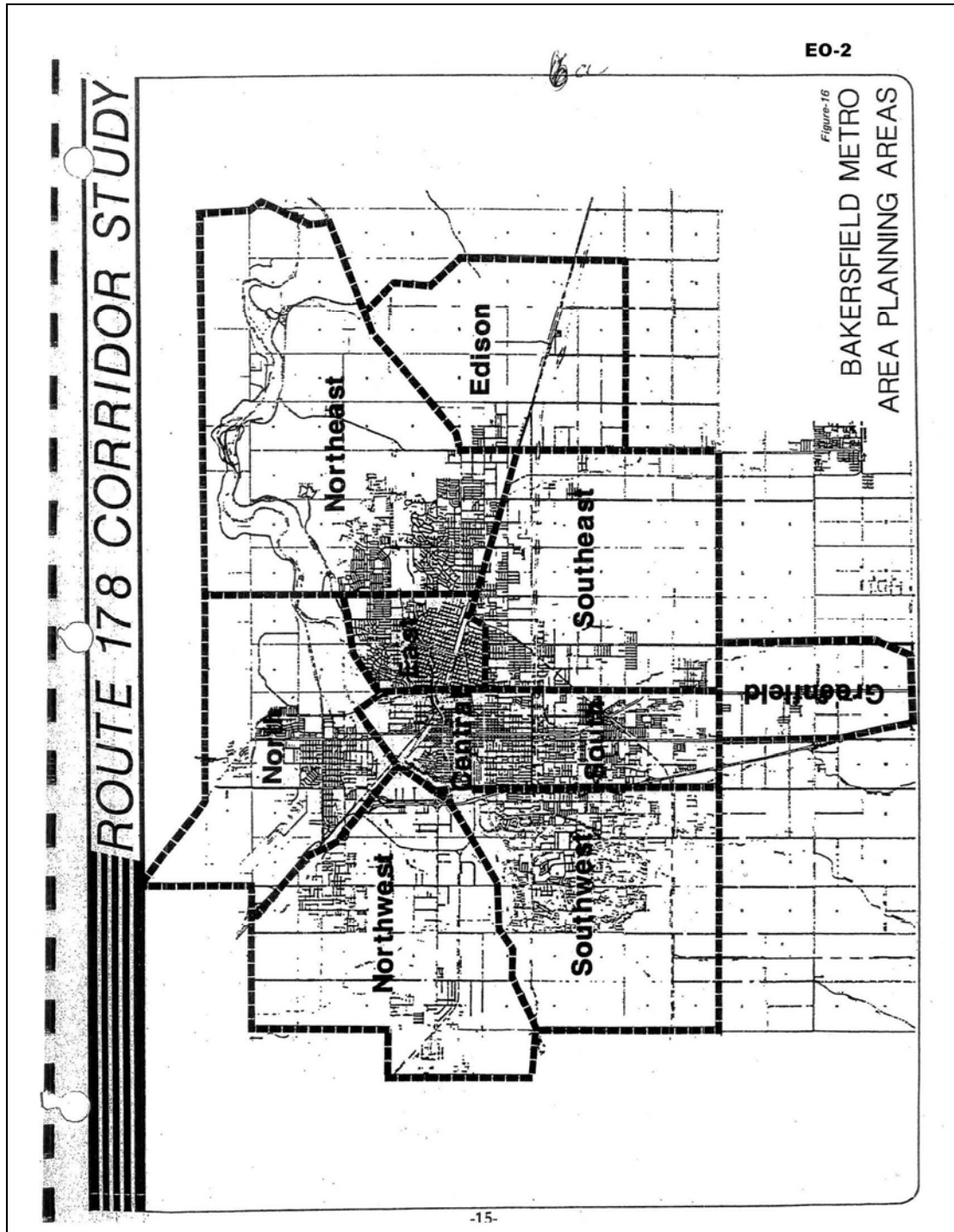
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1. Introduction
2. Uncertainty in forecasting

<http://link.springer.com/article/10.1007%2Fs11116-013-9497-y>

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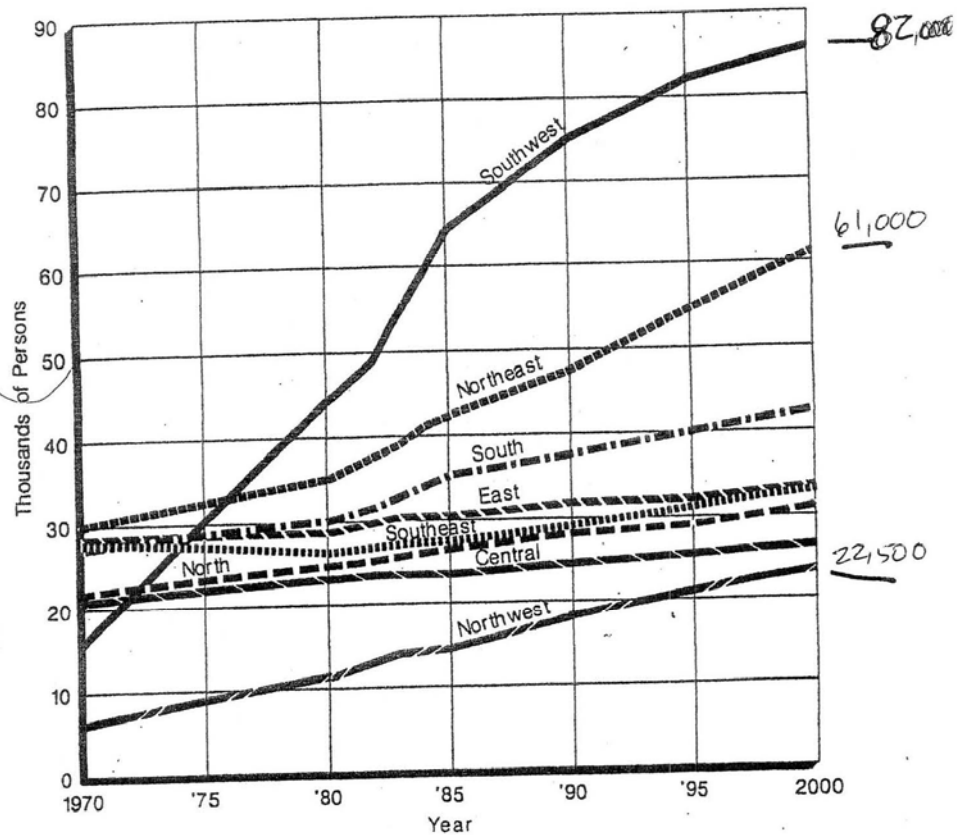


growing at about 2% per year at least through the year 2010.

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6

growth will put increasing pressure on the metro area street system, particularly Route 178. Two of the fastest growing areas of the region will be the south and northeast (see Figures 15 and 16). Growth will increase the demand for roads between these areas, and Route 178 is an integral part of the street system.

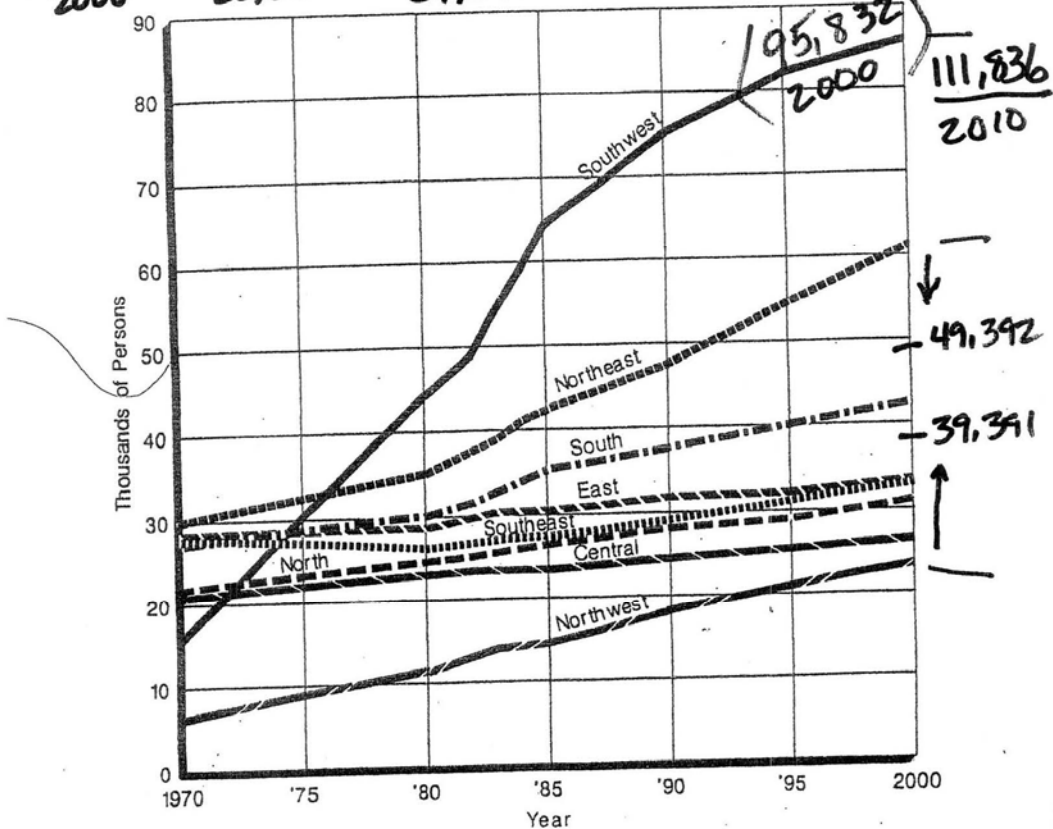
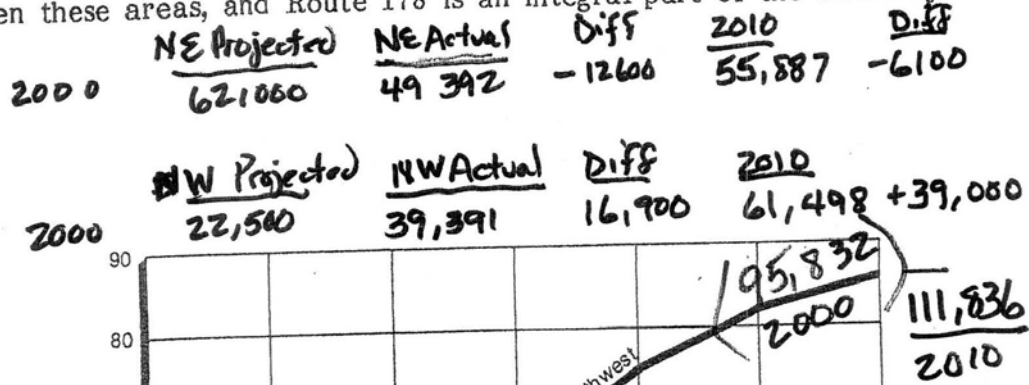


Source: Kern County Planning Department

growing at about 2% per year at least through the year 2010.

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Source: Kern County Planning Department

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 DOI 10.1007/s11116-013-9497-y

Hubris or humility? Accuracy issues for the next 50 years of travel demand modeling

David T. Hartgen

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Abstract This study reviews the 50-year history of travel demand forecasting models, concentrating on their accuracy and relevance for public decision-making. Only a few studies of model accuracy have been performed, but they find that the likely inaccuracy in the 20-year forecast of major road projects is $\pm 30\%$ at minimum, with some estimates as high as $\pm 40\text{--}50\%$ over even shorter time horizons. There is a significant tendency to overestimate traffic and underestimate costs, particularly for toll roads. Forecasts of transit costs and ridership are even more uncertain and also significantly optimistic. The greatest knowledge gap in US travel demand modeling is the unknown accuracy of US urban road traffic forecasts. Modeling weaknesses leading to these problems (non-behavioral content, inaccuracy of inputs and key assumptions, policy insensitivity, and excessive complexity) are identified. In addition, the institutional and political environments that encourage optimism bias and low risk assessment in forecasts are also reviewed. Major institutional factors, particularly low local funding matches and competitive grants, confound scenario modeling efforts and dampen the hope that technical modeling improvements alone can improve forecasting accuracy. The fundamental problems are not technical but institutional: high non-local funding shares for large projects warp local perceptions of project benefit versus costs, leading to both input errors and political pressure to fund projects. To deal with these issues, the paper outlines two different approaches. The first, termed 'hubris', proposes a multi-decade effort to substantially improve model forecasting accuracy over time by monitoring performance and improving data, methods and understanding of travel, but also by deliberately modifying the institutional arrangements that lead to optimism bias. The second, termed 'humility', proposes to openly quantify and recognize the inherent uncertainty in travel demand forecasts and deliberately reduce their influence on project decision-making. However to be successful either approach would require monitoring and reporting accuracy, standards for modeling and forecasting, greater

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 Springer

model transparency, educational initiatives, coordinated research, strengthened ethics and reduction of non-local funding ratios so that localities have more at stake.

Keywords Accuracy · Travel demand · Forecast · Uncertainty · Optimism
bias · Ethics

"All [traffic forecasting] models are wrong; by how much determines their usefulness." George Box.

"The future isn't what it used to be." Yogi Berra.

"Pay no attention to that man behind the curtain!" The Wizard of Oz.

Introduction

Martin Richards, longtime Editor-in-Chief for *Transportation*, has kindly asked me to contribute to this issue and I am most pleased to do so. Under Martin's 41 years of leadership *Transportation* has actively participated in virtually all of the issues and advancements mentioned below, and without his direction it is unlikely that *Transportation* would have achieved its current status. To him we all therefore owe our heartfelt thanks and our applause, and I must say that personally it has been a great honor to serve with him. As *Transportation* moves into its next era, I am confident that those who follow will build on his foundation and that *Transportation* will continue as a central point of focus for thoughtful discussion of the issues that confront us.

The topic of this study is travel demand modeling and forecasting, particularly what needs to be improved regarding modeling accuracy. My thesis advisor Martin Wachs once said, *"Never put a number and a date in the same sentence"*. Of course I proceeded to do exactly that for the next 45 years, carrying both to at least four digits of precision. Sometimes, standard practice encouraged it, sometimes the boss or client, and sometimes hubris. In perhaps a thousand cases varying from site-specific studies and intersection turning movements to broad country-level studies, I have willingly participated in this most basic analysis. In short, I'm a travel demand model-holic.

During the first 25 years of my career there was occasional soul-searching about travel demand forecasting methods and how to improve them, but little discussion about the institutional contexts surrounding them. Of course, there were periodic reviews of model weaknesses (e.g., Transportation Research Board 1973; Stopher and Meyburg 1976), but most in this business know that those are just the surface of much deeper problems that fundamentally challenge our knowledge and our procedures—and which we have only gingerly discussed. I am speaking here of the ethics of forecasting, including the potential for biased assessment, misrepresentation, advocacy, collusion and possibly even fraud.

These are strong words, not to be used lightly in any profession. So this will not be the usual *Transportation* paper with hypothesis, data, model coefficients and interpretation. Instead, it will be a 'frank and honest' (to use the language of diplomacy) assessment of various issues. Many, if not most, of my colleagues will disagree with my views; I ask only for thoughtful and constructive response.

Most of my discussion applies to passenger travel demand modeling, particularly estimating road traffic volumes and transit ridership, and mostly in urbanized areas. While one could make similar observations regarding freight modeling, the additional complexity of that topic and its even greater dearth of paradigms put it beyond my scope.

Uncertainty in forecasting

The primary reasons to undertake travel demand forecasts for proposed major facilities (new or expanded roads, new transit lines, new bus routes, etc.) are to: 'size' the facility in terms of capacity (width, lanes, buses, trains, seats etc.) per unit time; estimate the cost of project development; estimate revenue for toll-based projects; provide information for facility design such as pavements and supporting features such as nearby intersections; estimate socioeconomic and environmental impacts; and evaluate project costs versus benefits. This predict-and-provide method is intended to ensure that the built facility will have sufficient capacity to operate at the desired level of service over its intended lifespan, that its benefits will outweigh its costs, and that its impacts will be manageable.

The standard method of estimating travel demand for major proposals in urban areas, and for many proposals between urban regions, is the so-called 4-step method. The approach breaks the forecast problem into four computational stages: trip generation, distribution, mode split and assignment. For instance, the 4-step estimate for a forecast of average daily traffic (ADT) in year y on a proposed highway is:

$$ADT_y = \sum_{o,d,l} (\text{zonal origin and destination populations, employment, wealth, etc.})_y$$

- * trip rates _{y} [Trip generation, step 1]
- * distributed trips between O and D_y [Trip distribution, step 2]
- * share using private vehicles _{y} [Mode choice, step 3]
- * share using a particular road link l in year y . [Assignment, step 4]

The forecast traffic is then used in further computations to estimate impacts and design features. For instance, the number of (directional) lanes required to carry the predicted road traffic in year y is:

$Lanes_y = \text{Next Highest Integer of :}$

$$\frac{\text{Average Daily Traffic}_y * \text{directional factor}_y * \text{peak hour factor}_y * \text{design hour factor}_y}{\text{desirable level} - \text{of} - \text{service per} - \text{lane service volume}_y}$$

Typically, each of the above terms is treated as deterministic, with a single value given the circumstances (e.g., Highway Capacity Manual 2010). But each term is also a function of many other factors and is highly variable in time and space. And each of these background factors is also dependent on numerous additional assumptions, even though in most model applications they are treated as deterministic numbers not subject to variation or uncertainty. Usually, few calculations are made to determine range, variation or likelihood of occurrence of any of these terms. In road planning the problem is sometimes worked backwards, estimating the ADT needed to justify 4, 6, or 8 lanes, using typical values for the needed parameters (e.g., Florida Department of Transportation 2010). In the US most state department of transportation have similar methods for preliminary route planning. For more detailed corridor planning additional methods are also employed, but they also typically do not account for uncertainty.

There are several fundamental problems with this modeling structure. From an accuracy perspective, the method produces results that are increasingly viewed as inaccurate, perhaps 'just plain wrong', significantly biased toward over-statement, and not accurate enough for use as the basis for decisions involving large expenditures.

European and Australian experience

The magnitude and technical sources of these inaccuracies has been researched for some time. Beginning in the late 1970s the UK Department for Transport (United Kingdom) initiated studies to determine the accuracy of road traffic forecasting models. By 1988, the review had found 41 road projects that met their forecasts (i.e., actual traffic was within 20 % of predicted traffic), and 27 projects that had greater differences (Department for Transport (United Kingdom) 1988). Technical causes of these inaccuracies were attributed to overestimates of diversion to the new facility, underestimates of national traffic growth, failure to account for induced traffic, variations in regional growth, and subsequent changes in land use. Mackie and Preston (1998) identified numerous sources of error and bias in transport modeling, grouping them into those related to project objectives, definitions of alternatives, data errors, model structure and appraisal optimism. The Department for Transport (1998) began to revise its method of forecasting national road traffic in the mid 1990's, modifying the prior high-and-low forecasts (variations of GDP and fuel price, but without probability of occurrence) by adding a central fitted-on forecast intended to represent the most likely (highest probability of occurrence) outcome. By 2008 the Department for Transport (2008) had become more specific, requiring in its guidance for project development that forecasts of road traffic must include a 'core scenario' growth forecast and alternative scenarios above and below, with "*range of uncertainty equal to 2.5 %, times the square root of the number of years beyond the base year.*" However, there appears to be some question regarding how much this guidance is actually followed. The Department has recently expanded the comparative research to 55 projects, finding that about 90 % of forecasts were within 43 % of actual traffic (Department for Transport 2013).

The guidance further specifies that an Uncertainty Log be developed to enumerate and assess the likelihood of various events related to the tested scenarios, such as proposed developments, land use plans or zoning proposals, and infrastructure improvements. These findings are to be thoroughly reported in planning documents. Table 1 provides an outline of the classifications to be used in the Uncertainty Log.

A recent study by the European Court of Auditors (2013) investigated the accuracy of traffic and cost forecasts for 24 road investment projects in Germany, Greece, Poland and Spain. These projects were all non-toll, and included bypasses, road widenings, new 2- and 4-lane segments, new bridges, and upgraded 2-lane roads. Costs ranged from €5 million to over €650 million. The study found that while the projects partly delivered their intended purposes, assessment based on cost-benefit was impossible, and that "*Most of the audited projects were affected by inaccurate traffic forecasts.*" Actual costs came in an average of 23 % higher than predicted. For the 19 projects with traffic forecasts, 5 were within 20 % of the actual traffic, 11 were between 20 and 50 % off, and 3 were greater than 50 % off. On average, the actual traffic was 15 % below the forecast traffic. However, these were mostly 1 year after opening counts.

Another national review of toll road traffic forecasts is on-going in Australia. In a widely cited paper, Li and Hensher (2010) reviewed the traffic forecasting accuracy of 14 major toll Australian toll routes in Sydney, Melbourne and Brisbane. They found overestimates averaging 40 % for five toll roads in the Sydney area. Using regression models relating the percentage error to various characteristics, they attributed most of the error to less toll road capacity (when opened, compared with forecast), elapsed time of operation (roads opened longer had higher traffic levels), time of construction (longer construction time delayed traffic growth and increased the error), toll road length (shorter roads

Table 1 Outline for the Uncertainty Log (DfT 2008)

Probability of the input	Status
Near certain: the outcome will happen or there is a high probability that it will happen.	Intent announced by proponent to regulatory agencies. Approved development proposals. Projects under construction.
More than likely: the outcome is likely to happen but there is some uncertainty.	Submission of planning or consent application imminent. Development application within the consent process.
Reasonably foreseeable: the outcome may happen, but there is significant uncertainty.	Identified within a development plan. Not directly associated with the transport strategy/scheme, but may occur if the strategy/scheme is implemented. Development conditional upon the transport strategy/scheme proceeding. Or, a committed policy goal, subject to tests (e.g. of deliverability) whose outcomes are subject to significant uncertainty.
Hypothetical: there is considerable uncertainty whether the outcome will ever happen.	Conjecture based upon currently available information. Discussed on a conceptual basis. One of a number of possible inputs in an initial consultation process. Or, a policy aspiration.

attracted less traffic), cash payment (modern no-cash payment increased traffic), and fixed/distance based tolling (fixed tolls reduced traffic). Li and Hensher's re-analysis of the US toll road data (see below) yielded findings similar to that of Australia. In a recent review of seven Australian toll roads opened since 2005, Bain (2013) found that in all seven, the counted traffic volumes were lower than the predicted volumes by 40–60 %. Reviews for Sweden, Norway (Welde and Odeck 2011), Spain (Vassallo 2007), the Netherlands (de Jong et al. 2007) and PPP projects worldwide (World Bank 2008) have similar findings. The Australian government (Australian Government 2012) subsequently cited "*inaccurate and over-optimistic*" traffic forecasts as a threat to investor confidence. Three lawsuits now underway challenge the forecasts for toll road traffic that subsequently came in significantly under projections (Bain 2013).

US experience

In contrast, in the US the focus has been largely on the accuracy of transit ridership forecasts. In the first major US review, the Federal Transit Administration (FTA) examined the accuracy of ridership and cost forecasts for 10 major fixed-guideway transit projects built between 1971 and 1987 (Pickrell 1989, 1992). The study found that transit ridership was substantially overestimated and costs substantially underestimated for all 10 projects. Ridership forecasts were over actual ridership by an average of 257 %, and costs were low by an average of 61 %. FTA updated the study in 2003 using an additional 19 cases; they found modest improvements in cost forecasting since the 1989 report, but still systematically underestimating actual costs by 17 % on average. Ridership forecasts had also improved since the 1989 study. In 2009 FTA updated the study again, this time with 18 fixed-guideway projects completed between 2003 and 2007 (FTA 2009, Session 2). Actual

construction costs still exceeded the inflation-adjusted estimates developed in alternatives analysis by 40 %, and the actual ridership averaged just 75 % of predicted ridership. Curiously, FTA concluded that the cost forecasting had improved, but that ridership forecasting accuracy had not.

FTA does not have formal published guidelines for forecasting. Instead, FTA refers New Start sponsors to its recent workshops and draft policy Guidance (FTA 2009, 2013). The website and draft Guidance describe two basic methods of estimating fixed-guideway transit ridership: (1) a locally-based method using either a conventional 4-step model, an activity-based model, or a simplified data-driven incremental mode choice model of changes in travel times and costs for those trips that are within the influence area of a proposed project; and (2) a simplified national model called STOPS (Simplified Trips-on-Project Software) that (after completion of testing) sponsors will be able to use to prepare ridership forecasts for FTA New and Small Starts ratings purposes. The pre-cursor to STOPS was the ARRF (Aggregate Rail Ridership Forecasting) model that has been used by agencies for several years as a quality control comparison point to forecasts prepared from other methods. Both ARRF and STOPS are based on the experiences from regions with completed transit projects, and relates guideway ridership to census journey-to-work data, but STOPS is calibrated further with both BRT and rail projects and includes GTFS (General Transit Feed Specification) networks and peak period zone-to-zone auto travel times as inputs. Also, both methods encourage estimating opening-year patronage (FTA 2013), rather than focusing solely on long-range future estimates.

FTA also optionally permits (but does not require) proposals for New Start projects to address uncertainty in the forecasts of model inputs and other factors, suggesting a range of ridership forecasts (lower, most likely, upper). FTA also strongly recommends (but does not require) an 'incremental build-up' of the forecast for the locally preferred alternative, as well as a discussion of the specific sources of uncertainty ('upside' and 'downside') and their likelihood (FTA 2009, Session 10), similar to the Uncertainty Log used in the UK. FTA also requires before-after and predicted-actual comparisons of ridership.

However, the range of uncertainty may be too narrow. Reviewing 80 alternative total-travel scenarios from 50 large US regions, Bartholomew (2007) found that the on average the estimates of predicted regional vehicle-miles of travel varied only slightly (on average, about -2.3 % for an 11 % increase in regional density) from baseline forecasts, suggesting that the tests were not extreme. Whether transit sensitivity tests are broad enough is unknown.

Looking primarily at technical model accuracy, Chatterjee et al. (1997) reviewed the capability of traditional 4-step modeling techniques to provide increasingly detailed estimates of mobile source emissions resulting from transportation development and operations. They found that, in practice, some steps in the traditional modeling sequence (e.g., trip generation, distribution, and assignment) tended to decrease relative uncertainty (because they accumulate numerous estimates over a large numbers of cases), while others (particularly mode choice) tended to increase it (because they make estimates of small proportions). Nevertheless, the range of uncertainty in traditional traffic model forecasts was estimated to be on the order of 15–30 % for a major-road 20-year forecast, far wider than the detail needed for estimating emissions variations likely to be needed for air quality conformity tests, but considerably smaller than that estimated for toll roads, discussed below. The authors suggest ways in which current practice and analysis tools can be improved to increase the accuracy of their results. Bain (2011) reports an even wider variation for UK and other nation's projects, noting that "at the 90 % confidence level, 5-year traffic forecasts for new roads are likely to have an accuracy of ± 27.5 %". In his

review of US urban resurgence between 1970 and 2000, Wachs (2013) notes the failure of academics to see how transportation and urban resurgence are related, even though by 1975 virtually every large city in the US had a travel demand model and was using it for forecasting.

In a theoretical assessment of error propagation, Zhao and Kockelman (2002) used a simulation-driven 4-step model applied to the Dallas region to trace the uncertainty error through the 4-step process. They found that *“modeling error in effect grows [from an average of ± 30 % prior to generation to ± 42 % in mode choice] through the application of trip generation, trip distribution, and mode choice models... However, the final step of traffic assignment enjoys [an improvement] in uncertainty [to an average of ± 30 %] (at the link-flow level), thanks to overlap in different trips' routings and mode and trip distribution choices across all travelers, along with congestion feedbacks (which moderate the presence of high link-demand values).”*

However, in contrast to the experience of other nations, only a very limited number of empirical studies have been undertaken regarding US road traffic forecasting accuracy. The US's National Cooperative Highway Research Program (NCHRP 2006) undertook a review of forecasting errors for 15 US toll roads opened between 1986 and 1999. They found, on average, that the actual traffic was 35 % below the predicted traffic. For revenue, only 3 of 26 toll roads reviewed were above revenue projections after 1 year, and only three were still above projections after 5 years. Referring to the study, Naess et al. (2006) found that 13 of 14 US toll roads had over-predicted traffic by an average of 42 %. The key factors affecting the accuracy of toll road forecasts were identified as demographic forecasts, travel characteristics, tolling culture (local familiarity), value of time and willingness to pay, personal preferences and reliability, ramp-up period, truck use, time choice modeling, model validation, peer review, risk assessment, and optimism bias. NCHRP concluded that *“the most successful [toll road traffic] forecasts generally had accurate or even conservative economic forecasts with moderate anticipated growth levels. These toll roads were built in corridors that were fully developed and where congestion already existed”* reflecting Bain's work.

In another very recent development, the New York Supreme Court (2013) permitted to go to trial a case involving alleged fraudulent action to conceal ‘success fee’ payments to a traffic forecasting company, and thus optimistic traffic forecasts, if five toll roads were ultimately purchased by an investor group. To the author's knowledge, this is the first lawsuit in the US that concerns the accuracy of traffic forecasts.

However, unlike the EU study, no US studies have empirically evaluated the accuracy of travel demand forecasts for *un-tolled* new roads, or for other types of actions such as road widenings which are commonly proposed in metropolitan regions. That issue focuses directly on the accuracy of travel demand models for toll-free proposals. Spielberg et al. (2007) reviewed the status of travel demand forecasting methods in US metropolitan areas, to identify *“shortcomings in travel forecasting models, obstacles to better practice, and actions needed to ensure the use of appropriate technical approaches”*. They found that while the 4-step methods were generally adequate for analyzing major investment proposals, the 4-step methods did not adequately address the range of emerging policy options now being discussed, nor for financial analysis such as is needed for toll road evaluation. But they did not quantify the degree of uncertainty in travel demand forecasts. The study identified the primary weaknesses of current travel demand forecasting methods as lacking behavioral content, policy insensitiveness, and lacking dynamic conditions. This study recommended substantial funding increases for improved modeling (to \$ 20 m annually), pooled fiscal resources from urbanized areas, and increased attention to activity modeling.

The report did not, however, call for new paradigms of travel or propose international efforts, nor did it address broader methodological or process issues.

The US federal government guidance for road traffic forecasting (Federal Highway Administration 2010, p. 23) has identified the major “*substantial uncertainties*” in traffic forecasts as “*population and employment forecasts, housing trends and costs, global and local economic conditions, other planned transportation improvements, time-of-day assumptions, parking prices, fuel prices, and long-term changes in vehicle technology*”. To deal with this form of uncertainty, the Guidance recommends an “*incremental buildup*” of the forecast, adding each element sequentially to the baseline traffic model until the full future forecast is made. This approach provides just one forecast for each alternative, and does not address the issue of uncertainty or inherent variation in each of the components of the forecast.

Recently the National Cooperative Highway Research Program (Donnelly et al. 2010) reviewed the advances in travel demand modeling, looking at activity-tour models, dynamic modeling, integrated land use, and freight. Regarding risk and uncertainty, the recommended approach is to conduct what-if scenarios that vary the most significant input assumptions about land use and system performance. The study did not address institutional issues such as non-local shares for major projects, lengthy planning timelines, regulations tying modeling to legal requirements, or optimism bias. NCHRP has also recently initiated a comprehensive assessment of very large and long-range strategic issues that might affect US transportation. The study is still underway, but the first report (NCHRP 2010) focused on broad trends like aging population, increased global trade, climate regulation, protectionism, and sustainability. The study has yet to assign probabilities to various events, let alone suggest how they might be accounted for in travel demand modeling. A third stream of recent research has focused on methods to incorporate uncertainty of travel time and the value of travel time into traffic modeling (Strategic Highway Research Program II 2013a, b). This research also recommends the use of scenarios (optimistic, average, and pessimistic) to deal with uncertainties in inputs.

More recently Chow et al. (2012) have noted the increased fracturing of travel demand modeling and its strained efforts to address emerging issues. They call for a broader educational structure based on fundamental flow principles rather than modal or topical issues, but do not address ethical or institutional issues. Work is also progressing on such issues as probabilistic estimates of travel time delays. For instance, Jaggi and Axhausen (2013) investigate how to incorporate dynamic loading by hour, variation within hour, and variation in capacity. They propose a probabilistic method of estimating travel time losses (delays) for each hour of the year, for different road classes, using the chance of a breakdown in traffic flow, as an extension of familiar flow-speed curves.

To summarize the current US situation, no systematic numerical assessment of accuracy in highway traffic forecasts has yet been conducted in the US. The Federal Highway Administration’s Travel Model Reasonableness Checking Manual (Travel Model Improvement Program 2010) concentrates not on accuracy in forecasting but on model validation, that is testing to see if model results fit existing traffic count and VMT in the base year. According to the Manual, these tests should indicate that calibrated traffic estimates for observed routes are within 20 % of actual volumes for road volumes over 50,000 AADT, and within 30 % of actual volumes for road volumes between 10,000 AADT and 50,000 AADT. The discussion of sensitivity is about what parameters to use for congestion delay curves. In forecasting, the Manual indicates that the objective is “*not to achieve a close match between the forecast and base year results, but rather to ensure that the differences and trends are reasonable.*” But there is no discussion of the required or

known accuracy of travel demand forecasts, and no guidance similar to the requirements for sensitivity testing such as that in the UK—if that is actually followed.

Technical sources of inaccuracies in travel demand forecasts have been variously attributed to inaccurate demographic forecasts, particularly population, households and employment trends at the zone level, but also to major changes in pricing such as gasoline prices, rising vehicle availability to more households, changing lifestyles such as women in the workforce and immigration, and to unverified assumptions regarding the stability of household travel relationships. As such, they can be investigated by a variety of methods such as better data collection, use of scenarios, probability of occurrence and interaction among sources. Although time-consuming, this approach is relatively straightforward, analytically.

Ethical issues in forecasting

However, there are also broader pressures influencing the forecasting process itself. In early papers on this topic Wachs (1989, 1990) focused on the ethics of forecasting in transportation planning, and particularly the institutional environment that encourages, perhaps even demands, that forecasts be thinly veiled “*highly subjective exercises in advocacy*” for project justification rather than “*utilitarian*” objective assessments. In essence, forecasts are often “*deliberately designed to put certain projects in a favorable light and others at a disadvantage*”. To combat this issue Wachs called for public education on advocacy versus objectivity, protection of those exposing abuses, strengthening ethics codes and stronger education programs for professionals. Altshuler and Luberoff (2003) also note the pervasive influence of federal funding in moving megaprojects forward.

In controversial work Flyvbjerg et al. (2003, 2006, 2009, 2013; Naess 2006; Cantarelli et al. 2010) reviewed the forecasting accuracy for 258 highway and transit megaprojects worldwide, built between 1927 and 1998. They found that for transit projects, actual costs were on average 45 % higher than estimated, but the actual ridership averaged just 61 % of predicted ridership. For highway projects, the cost forecasting error averaged about 20 % high, and traffic estimates averaged about ± 20 %. They attributed these inaccuracies to methodological errors, input errors, personal behavior that was different than predicted, unexpected external changes, political actions, consultant bias, and appraisal bias of the promoter. Toll-road forecasts were found to have larger error than non-toll forecasts. Cost overruns for large projects were attributed primarily to “*political explanations*” rather than technical, economic or psychological reasons. This bias was attributed largely to implicit cooperation between government officials, contractors, consultants and politicians, rather than to errors in input or modeling. Using very strong language, they suggested that cost overruns seemed to be “*best explained by strategic misrepresentation, namely lying, with a view to getting projects started*.” The main cause was found to be “*[neglect of] risk and lack of accountability in the decision-making process*.” Flyvbjerg (2009) argued that “*a rapid increase in stimulus spending, combined with more investments in emerging economies, combined with more spending on information technology, is catapulting infrastructure investment from the frying pan into the fire*”. To combat megaproject uncertainty, the authors call for greater transparency, model performance specifications, due diligence in forecast reviews, tighter regulation of construction and financing, use of private financing for risk capital, and improved management based on state-owned-enterprise and build-operate-transfer business models. More recently Flyvbjerg has called for penalizing forecasters for producing “*significantly inaccurate and misleading forecasts*” (Forster

2012), but others have noted that inaccurate client data are more to blame for forecasting errors (Forster 2013).

Using a data set from Standard and Poor's on vetting proposed toll road projects, Bain (2009a, b, 2011) reviewed the traffic forecast accuracy of 104 highway projects from numerous countries. He found that after correcting for optimism bias about 90 % of actual traffic volumes were within ± 43 % of their respective forecasts, but charts in the study show that the average estimated 20-year error was about +20 % that is, the average 20-year forecast traffic was 20 % higher than actual. Bain also cautioned against inflating forecasts as an "act of deception", and warned of sensitivity tests that are "insensitive to project traffic or revenue", and using "pseudoscience to infer precision.....not supported by empirical evidence". He also recommended the use of a traffic risk index to score the major technical and institutional risks for a specific project (Bain 2009a, b). Lemp and Kockelman (2009) provide a comprehensive summary of these studies.

Wachs, Bain and Flyvbjerg generally infer the existence of deception, lying or collusion from the cumulative evidence of groups of projects (for instance, a high proportion of projects with over-forecast of traffic or revenue), and from comparisons of project forecasts with those of peer projects. But of course this does not mean that a specific project forecast is necessarily biased. And Wachs also points out that it is usually not illegal to amend the assumptions of a forecast for political reasons. Legal disclaimers in consultant documents, liability insurance, and disclaimers in financial documents generally protect forecasters from *ex post facto* legal action.

The extent of this form of manipulation is not fully known. Some observers believe it to be quite common, perhaps even widespread, in toll road forecasting. Others suggest it is essentially an amoral 'victimless crime': the public gets the road and the contractors get a profit. Others suggest it is quite rare, perhaps even non-existent, in non-toll forecasting activities. Clearly, however, the recent rapid increase in toll-based financing of major projects along with concomitant risks for private investors has increased the visibility of the issue. Considerably more research would be needed to identify its current magnitude. The Australian court cases now moving forward, which are centrally concerned with ethics, may clarify this issue.

All of the above studies concentrate exclusively on large projects within urban areas that use the conventional 4-step modeling process and on large inter-regional projects using similar methods. There are no comparable studies of smaller actions such as transit service increments or pedestrian-bike studies, or a wide range of other policies, although periodic reviews of *ex post facto* travel response to such policies have been made and codified (e.g., Pratt 2013). Essentially, we know very little about the accuracy of such tools, but it is seems unlikely that they are any more accurate in forecasting than the 4-step process.

Increasing complexity and inadequate policy response

Another serious issue is that the range and content of policies that these models are expected to address is increasing, especially increasingly complex road pricing schemes. As noted above, these methods were initially developed to evaluate alternative major transportation actions such as new roads, major widenings and major new fixed-guideway transit proposals. But in addition to these issues, numerous other policy options are now under scrutiny. They include demand-management policies such as VMT-reduction policies, employer parking restrictions and carpool mandates, vehicle user pricing, congestion

pricing flexible work schedules, carpooling and vehicle sharing; technological changes such as vehicle fuel efficiency, energy constraints and costs; transportation system actions such as capacity reductions ('road diets'), pedestrian-bike systems, transit improvements and transit-oriented development; transportation funding mechanisms such as tolling, and impact issues such as air quality, climate change, noise, induced travel, socioeconomic impacts, land use, urban form and equity issues. In the US federal requirements for modeling include "estimating motor vehicle emissions (which depends on estimating speeds and traffic volumes by time of day), estimating new travel generated by adding new capacity, evaluating alternative land use policies, and estimating freight movement and non-motorized trips" (Spielberg 2007), to name just a few. Many of these issues are handled post-model and thus incorporate whatever errors the models contain. Looming just ahead are topics like internet communication, social networks and media, self-driving cars, automated vehicle routing and immigration.

The primary methodological advancements that deal with some (but not all) of these issues include disaggregate (disutility) and revealed preference methods, stated preference methods, activity-tour models, multi-modal networks, advanced statistical methods, dynamic assignment, micro-simulation, integrated land use-transportation models, geographic information systems, internet-related applications, and social media data monitoring. These improvements are increasingly complex but have less verification and calibration, little or no external validation, and (so far) virtually no *ex post facto* testing of model accuracy. They have also become operable by only a limited number of specialists. Some observers go further, suggesting that travel demand modeling has split into largely isolated sub-disciplines that only a few individuals can successfully integrate (Chow et al. 2012) and sometimes fail to communicate with other specialists. Most standard texts do not discuss issues such as model complexity, accuracy, or practical modeling problems.

Further, some of these methodological advancements may not be real advancements at all, since they are primarily modifications of existing tools. While some models contain genuinely new elements, most are operated as bolted-on additions to the existing 4-step process. Although some observers might disagree, I think it is safe to say that the basic 4-step paradigm we use for travel demand forecasting has not changed substantially since its development in the 1950's. The box looks different, but the contents are remarkably similar. In short, we are asking the 4-step model to do far more than what it was initially designed for, a form of mission creep.

In summary, the complexity of current models means that few modelers are proficient enough to understand the uncertainties, and many users have no way to assess model validity and have to basically trust the outputs. This leads to an impression of unwarranted accuracy in forecasting and false precision in estimates.

Widening gap between theory and practice

Many observers have also noted the widening gap between model theory and practice, which seemed to accelerate in the early 1970s with the advent of federal research money and advanced statistical tools and model structures. Many model advancements are not even used in practice, instead getting bogged down in the minutia of model results and trivial findings. And when the newer methods, for instance activity models and dynamic assignment, are placed in practice, it is alongside or as add-ons to existing 4-step processes (Jones 2012). Few regional planning offices have the expertise to operate these tools, leading by default to applications by consultants and academics if they occur at all—and of

course the results might not be more accurate. Ironically the US's continuing investment in model improvement efforts (Travel Model Improvement Program 2010), particularly its investment in TRANSIMS, may have accelerated modeling advancements but resulted in lagging implementation, particularly in smaller regions that find the advancements cost-ineffective. As Jones notes (2012) the time lag gap and complexity gap between research and practice seems to be widening, and in fact is not new: as early as 1990 Pas noted the widening gap, and the various reports of the International Association for Travel Behavior Research (IATBR 2013) going back to its first conference in 1973 (TRB 1973) each also note the theory–practice gap.

In the background

Travel demand forecasting does not exist in a vacuum, either in theory or in practice. In the background are a host of additional political, regulatory, fiscal, geographic and institutional circumstances that affect model accuracy and forecast errors.

Regional planning

The history of travel demand models is well documented in a variety of papers, including Boyce and Williams (2005); Boyce and Williams (forthcoming, 2013); Ran (2012), Shuldiner and Shuldiner (2013) in this issue of *Transportation*, Pas (1990) and Jones (2012). These reviews trace the development of modeling methodology and modeler views of travel but generally place less attention on institutional considerations. In the US, requirements for long-range travel demand forecasting are actually *mandated* in the 1962 Federal Aid Highway Act, which required 'comprehensive, continuing, and coordinated' (3-C) transportation planning in metropolitan regions with populations above 50,000 as a condition for federal financial assistance. The rules accompanying the Act laid out criteria for planning, including 20-year demographic forecasts by zone, multi-modal forecasts (quite a new exercise), economic analysis of alternative investment plans, and many other requirements. These requirements initially came from the apparent successes of early transportation studies in Chicago, Detroit, San Juan, Pittsburgh and other regions, which relied heavily on the capabilities of (then) 'modern high speed computers'. During the 1960s and 1970's consultants and academics exported this technology to virtually every major city in the world. The 4-step process has gone through several stages of refinement since then. Ran et al. (2012) classify these periods largely by the availability of communication technology, and Boyce and Williams (2005) classify them by mathematical complexity and consistency, rather than by topical focus. Recent regulations (for instance, requirements for conformity with state air quality plans, noise and water quality impacts, encouraging time extensions to 40 years rather than the original 20, congestion management and environmental justice) have substantially increased the 4-step model's complexity and stretched its credibility, some say to the breaking point. Some of these exercises, particularly EIS requirements for US projects, require or encourage project-specific point-based estimates of future travel demand by time of day and speed, a clearly unrealistic goal.

Some observers have recently criticized the present long-range planning process as fundamentally flawed, with too many unachievable goals, feel-good scoring to evaluate projects, failure to challenge critical underlying assumptions, and general lack of critical thought. In a review of 75 long range plans for US metropolitan regions, O'Toole (2008)

found that “nearly all [long range transportation plans] included population and growth and traffic, but few describe[d] how reliable the travel forecasts might be, [and] no plan reported that planners did any sensitivity analyses to deal with questionable assumptions and forecasts.” In reviewing the long range plans for 23 large US regions this author (Hartgen et al. 2008) found that very few plans were realistic about the impact of projected growth on congestion, often forecasting much lower road speeds as congestion increased, even with large plan expenditures. Virtually all plans used the 4-step process for traffic forecasting, but none made forecasts for pedestrian or bike use, or of car-sharing, regional pricing scenarios, work-schedule policies, or other options. Only one region (Los Angeles) had estimated the impact of CO₂ control policies. The review also noted remarkably similar content and format across plans that rigidly parroted federal guidelines, suggesting that they had become standardized ‘process’ documents driven by federally-directed formats and contents, intended to ensure self-certification for continued federal funding, but then put on the shelf until the next ‘five year plan’ update.

Many non-capital policies reviewed in the long range plans are typically not easily amenable to analysis with the 4-step process, but also are not analyzed using other methods. These include regional policies for pedestrian-bike networks, and some bus-based transit networks. Policies that are geographically limited, such as transit-oriented development, are also typically not studied with these tools. On the other hand, some topics such as air quality conformity are over-modeled relative to impact. The author’s study (Hartgen et al. 2008) found that the typical US region predicted 50–80 % reduction in emissions just from vehicle turnover, but the emissions impact of new projects was typically just 0.1–0.25 % of regional emissions, way below the modeling accuracy threshold. Another topic, environmental justice, is typically treated by analyzing where disadvantaged populations live along proposed highway projects, ignoring the increases in regional access to jobs or housing that such projects might bring. On the other side of the ledger are topics that are under-modeled, such as regional accessibility, induced travel, productivity and jobs, and economic development which are of great interest to localities (e.g., Worsley 2013) but rarely studied in long range plans.

Project planning

At the project level, there is also considerable regulatory and technical complexity. For project level forecasts, the relative magnitude of uncertainty of zonal population and employment projections increases exponentially with declining zone size and increasing forecast horizon (even for historically stable or filled zones that may be re-built to higher density). It is one thing to forecast, with some confidence, the likely population of an entire urban region, but it is much more difficult to forecast the traffic in and out of a small zone, let alone one influenced by a proposed new route (the so-called induced travel issue).

In the US, the analysis of projects has become substantially institutionalized. The Environmental Impact Statements required for major new highway projects by the National Environmental Policy Act of 1970 was initially intended to evaluate alternatives against a “no build” option, and develop a “preferred alternative” for later design. A brief review of Environment Impact Statements for major road projects reveals remarkable similarity in the structure and content of documents, each following the exact same format, even using similar words and density of material for traffic forecasts and induced travel. Technical supporting documents are also remarkably similar. Sensitivity analysis of forecasts for projects is unheard of. For transit projects, early ridership forecasts commonly used ‘adjustments’ (sometimes called ‘bias coefficients’) to account for un-measured

transit features in modeling estimates, or included otherwise optimistic assumptions about operation and cost, but some sensitivity analysis is now undertaken, particularly in more recent documents. The underlying goal of both processes seems to be to ensure that the required steps are followed to comply with law and regulation, but also to justify the project and lock in federal dollars before other projects get them. There is virtually no attention to the experience of similar projects, either locally or in other regions (sometimes termed 'reference class' reviews) that might shed light on project worthiness.

Another serious problem is the overshadowing presence of large non-local (federal, state and private) matching funds for major projects. In the US, the federal share for Interstate projects is generally 90 %, and 80 % for other federal-aid projects, with the states (sometimes the private sector) picking up the bulk of the remainder. For major transit projects, the federal share is typically 50 %, and localities (sometimes states) fund the remainder. In both cases the process is intensely competitive, with sponsors vying for funding within each state (for roads) or between cities (for transit). Since these projects are generally financially infeasible without funding help from higher levels of government or the private sector, localities rely on federal, state or private sector funding to progress them. This biases the local benefit-cost ratio in favor of the project since the localities generally receive all or most of the benefits but contribute at most 20–50 % of the cost. (Sometimes, additional items are monetized to increase the benefit-cost ratio). Localities may have less interest in the forecast traffic but instead just want the project built. In essence, the non-local funding pushes forward projects that might not be built if localities had to pay for them entirely. This is particularly the case for projects with private-sector involvement, in which amorphous distant investors are seen as taking the risk, but it also applies to projects funded by formula allocations. Although there were certainly expressions of such concerns in the past (for instance, the Dulles Greenway), one might also argue that the whole issue of modeling uncertainty did not move to the fore until private-sector-financed megaprojects failed expectations of cost or demand.

Major weaknesses in travel demand modeling

The fundamental weaknesses of currently used in travel demand modeling have been extensively enumerated by many observers. In summary, they are:

- **Unrealistic model paradigm:** It is well recognized that the 4-step modeling paradigm developed 50–60 years ago is only a computational convenience that is not behavioral and does not reflect how traveler decisions are actually made. In spite of widespread agreement concerning this weakness, comparatively little basic research has been conducted into how households actually make activity and travel decisions (Pas 1990; Talvitie 1997; Jones 2012; Strategic Highway Research Program II 2013a, b). Even though the potential use of new different paradigms is significant, most activity models begin with largely unverified assumptions regarding household decision-making, for instance synthesizing activity patterns for demographic classifications, role and resource allocation within and between households, social networks and assumptions regarding trip chaining. And since many theories can often fit a data set, mere calibration is not validation of theory, let alone forecasting capability.
- **Questionable methodological advances.** The major improvements to the 4-step process (for instance, attitudinal inputs, choice models, activity-tour methods, dynamic assignment, micro-simulation, and land use integration) have significantly increased

model complexity and cost, but (with the exception of choice models) have not produced significant advances in performance or understanding. Further, (again, with the exception of mode choice models) these improvements have been applied to only a few limited cases for larger regions, leaving smaller regions stuck with the old paradigm (An exception is the SHRP II effort 2013a, b, for Jacksonville FL and Burlington VT). They are also expensive and time-consuming to implement, with unknown incremental forecasting value, which make them probably not cost-effective for smaller regions and possibly not cost-effective for large regions either.

- Questionable accuracy. As noted above, the few rigorous tests of 4-step model accuracy have not been comforting, showing instead wide variations between predicted and actual future traffic. Although no formal research has been conducted, it is likely that most 20-year traffic forecast accuracies for toll-free road widenings are no closer than within $\pm 30\%$, but probably a much higher uncertainty range.
- Cross-sectional data: Data used to build and then validate 4-step models is invariably cross-sectional in time and therefore by definition contains a frozen view of travel behavior at the time of the travel survey. There are only a very few long-term longitudinal panel surveys of travel, notably in Seattle (now defunct) and the Netherlands (beginning again in 2013 after earlier waves in the 1980's), and just a few before-after surveys, for example tolling projects in Atlanta, Seattle, and Minneapolis. But even if one could forecast the life-stages of a future population, the stability of travel behavior must also be assumed going forward. To use a cross-sectional model in forecasting requires the assumption that the underlying behavioral relationships captured in the data are unchanged from the base year going forward, implying that whatever changes led up to the current behavior will then be suspended going forward, a logically untenable position.
- Coarse zone structure: Most 4-step models have a zone structure that is too coarse for project planning or for numerous non-infrastructure policies. This is particularly true for projects at the edges of regions, where zones are larger and growth rates tend to be faster. But even within urban areas the zone structure is too coarse for modeling choice behavior for many policies, and is a particularly serious problem for transit forecasting where walk-access to and from proposed transit stops is typically shorter than zone-to-zone centroid distances. Of course, zone size could be reduced to deal with this issue, but then socioeconomic forecasts are even more uncertain. New GPS methods and internet-based data tracking, such as cell-phone data, may reduce this problem, but the resulting data are less accessible and have less attached socioeconomic data.
- Inadequate sampling. Small sample sizes, for instance for choice-based models, are too small for generalization and do not gather information on specific O-D movements. Even large area-wide surveys rarely interview more than 2 % of regional households, so most O-D flow cells are empty. GPS-based data and cell-phone tracking data are more extensive but lack demographic and socioeconomic characteristics.
- Over-sampling. Occasionally models are built with so many observations that all model statistics are found to be highly significant, even though the model itself is misspecified and is useless in forecasting. This is likely to become a more serious issue as big data sets from cell phones, for instance, are used to estimate corridor traffic characteristics.
- Misspecification. The presence of low goodness-of-fit measures, for instance low R-squares, is often a tip-off that the model is misspecified. Many observers note that poorly specified variables and missing variables are a common problem in travel demand modeling, and that reliance on just time and cost for modeling is a significant

mistake. For instance, heavy reliance on travel time, cost and income variables in mode choice modeling reduces attention to such factors as household location and work-school travel needs, habit, modal bias, prior investment in vehicle ownership, socioeconomic contexts reliability, convenience, safety and other factors that are likely more important, but difficult to collect and model.

- Weak calibration and verification. Even when calibrated on existing data or 'verified' using hold-out samples, goodness-of-fit statistics often show weak model explanatory power. And of course tests of base-year fit are not indications of external validity, and are no guide of predictive performance.
- Trivial or nonsensical findings. Often, tests for policies show very little or no difference between the policy impacts and the no-build option, such differences generally being much smaller than the intrinsic uncertainty in input parameters. But as Alonso (1968) pointed out many years ago, error propagation mathematics indicates that the largest relative errors come from subtraction and division. And arithmetic's significant-figure rules tell us that the precision of a mathematical formula cannot be more than its least precise term. It is therefore illogical to assert that the difference between the results of two tests is more accurate than the accuracy of the tests themselves. Basically, the smaller the difference being observed, the stronger, not weaker, the underlying model has to be.
- Limited before-after testing. Very few modeling exercises are designed to conduct before-after studies to determine how well the model predicted traffic. As noted above, in the US only major transit investments have been subjected to such tests, and even those studies have not identified the specific causes of the variation.
- Limited use of similar experiences. Modeling efforts have generally used locally-driven data such as trip rates and trip lengths, and locally developed forecasts for such items as population and land use, with only limited comparisons of forecasts to the experiences of similar regions. So-called 'reference class forecasting' has rarely been used as a backdrop to locally-driven forecasts, although the Federal Transit Administration is increasing its use (2013).
- Limited policy relevance. Models often contain variables that are irrelevant or trivial with respect to the alternatives being studied. The typical variables at hand (generally time or cost) are poor descriptors of the features of many policies.

What to do?

In the US the single greatest knowledge gap in travel demand modeling is not the unknown elements of travel decision-making, great as that is, but the uncertainty of toll-free road traffic forecasts based on conventional 4-step travel forecasts. A sponsored effort to research, consolidate and report on the demonstrable accuracy of historical travel demand forecasts (similar to the EU study), and the likely sources of error, would be of immense help in quantifying the magnitude of this problem. This should also be undertaken for other forecasts that do not use the 4-step method.

In the meantime we can of course continue on as we have been, funding modeling improvements incrementally as with TMIP and other research funding streams, addressing specific shortcomings, and encouraging adoption as regions update their models. But this approach would leave large gaps in knowledge regarding the accuracy of our models, no formal mechanisms for quantifying or reducing the uncertainty of our methods or in

addressing the increasingly visible biases in them, and no structured mechanism for improving our understanding of travel decisions. This approach would likely accelerate the continued shotgun funding of research with no overarching sense of needed knowledge and a continued widening gap between theory and practice. As the weaknesses in travel demand forecasting methods become more apparent, driven likely by investor demands, doubts about their use will increase and questions about their usefulness will likely proliferate. This would lead, in my view, to the slow but steady erosion of relevance.

Hubris

On the other hand, the generally positive experience of the US Federal Transit Administration to improve transit modeling accuracy, and the efforts in the UK to improve road traffic modeling accuracy, suggest that modest progress in the accuracy of travel demand models is possible with a targeted and directed effort. (It should be noted that neither effort has yet actually demonstrably improved forecasting accuracy.) More likely, recent reviews of model accuracy highlight weaknesses that probably cannot be fixed without new basic modeling paradigms. Other disciplines (biology, astrophysics, even highway research—the Strategic Highway Research Program) have developed broad long-term agendas to improve understanding, but travel demand forecasting targets short term research reflecting researchers' interests, not users' long-term goals.

If such a moon-shot effort were undertaken, it would have to be based on the conviction that we need to get a lot more serious about understanding travel. In this approach, a concerted effort would be made to improve the accuracy of travel demand modeling over the next 20–30 years, and account for emerging opportunities such as cloud computing and social media. Ran et al. (Ran 2012) provide a broad overview of how these emerging communication technologies might ultimately provide the underpinnings of integrated system models that could 'optimize' future individual travel choices. And Shuldiner and Shuldiner (2013 in this issue of *Transportation*) outline how social media may transform travel behavior.

However, to be successful, this approach cannot rest just on Big Data or more computing power. We also need an honest assessment of what we know, what we don't know, and what we need to know to address emerging policy issues. These gaps have been characterized as consumer responses to collaborative consumption options such as car clubs, the impact of information services, internet-driven substitution for travel, and transport-land use interactions (Polak 2013), but one might also add the economic impact of transport proposals (Worsley 2013), energy pricing, automated cars, and emerging lifestyles. Once we know what we need, we then need to formulate long-term research plans spanning perhaps 20–30 years to get what we need and implement it. This will not be easy and will require coordination among a wide range of stakeholders.

Recently the US's Strategic Highway Research Program II (2013a, b) has initiated a large (\$4 m) project to improve modeling by integrating activity models with network and capacity information. The goal of the project is to build a *"dynamic integrated model [emphasizing] behavioral changes in use of highways in response to highway conditions. Methods proposed should address changes in demand such as micro-time of day choice (i.e. peak spreading) and route choice in response to adding lanes and in response to operational improvements such as ramp metering, signal coordination, freeway management, ITS, reversible lanes, HOV/HOT lanes, variable tolls, variable speed limits, and bottleneck improvements. Detailed, time-sensitive highway networks will be expected to*

include detailed and accurate highway operating characteristics to ensure that such policies can be adequately addressed". Rather than being a new paradigm, this effort essentially grafts activity modeling methods onto traffic assignment. And it might lead to failure, or (more likely) to limited use in practice. Extensions to incorporate social networks (e.g., Auld and Zhang 2013; Deutsch and Goulias 2013) substantially increase modeling complexity. The US effort to implement TRANSIMS (a individual-level micro-simulation network-based modeling system), spending very large sums over 20 years but (at this point) having no operational application and few regional tests, is a cautionary experience to be taken very seriously. Big Data and Big Research have a significant risk of Big Failure.

The following is my admittedly biased professional view of what might be needed in such an effort:

- Professional standards for the use of models and treatment of uncertainty. First, terms need to be better defined. This review found a variety of definitions for such terms as *base ridership/volume* (current year, year of original data, etc.), *forecast traffic* (e.g., traffic estimate used to make the construction decisions, post-decision estimates), *forecast year* (future year, years from opening, years from forecast, etc.), and *actual traffic* (e.g., traffic at one year after opening, 5 years, 10 years, 20 years, or by date, etc.). The definitions should also include methods for adjusting short day-long, week-long, or monthly counts to ADT using seasonality and axles. Although such variation is to be expected in emerging topics of study, if travel demand model forecasts are to be compared and evaluated, these basic rules for metrics need to be established.

We need arrangements for monitoring and periodically reporting model accuracy. Perhaps an (international?) effort to consolidate and archive modeling forecasts, along the lines of the University of Minnesota's archive of travel surveys, or an extension of FHWA's archiving of long range transportation plans, could be developed cooperatively by professional organizations, universities and governments.

Standards for expectations for model accuracy (not just validation), setting acceptable error ranges are also needed. How accurate should forecasts be, for various circumstances (context, mode, functional class, forecast year, etc.)? Perhaps 20–20 accuracy ($\pm 20\%$, 20 years out) is close enough for a decision regarding total traffic for a proposed new road. But greater accuracy might be needed for designing pavement strength, or for decisions regarding toll financing. On the other hand, decisions regarding the number of lanes might be needed only to within $\pm 50\%$ (Polzin 2013). Flyvbjerg (2013) calls for various professional associations to set such standards and the ethics for forecasting.

Standards for the procedures for estimating forecasting uncertainty, in both ranges and scenarios, and their probability of occurrence, should also be developed, and reports should include uncertainty alongside every forecast (e.g., US National Association of Municipal Analysts 2005). Bain suggests the use of fan charts, a technique used in monetary policy (Britton et al. 1999), as a means for developing and describing the uncertainty of forecasts to non-experts. For Instance, Fig. 1 shows the 10-percentile (likelihood) ranges (high and low) of predicted transactions for a toll road forecast, by year. Since much of the discussion of this issue is based on toll-road development by large international corporations, international and private-sector organizational cooperation would seem to be essential in developing quantitative standards for model accuracy.

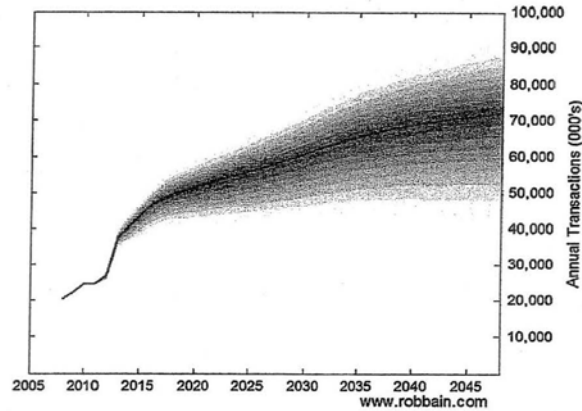


Fig. 1 An example of a traffic transactions fan chart

Additionally, we need more comprehensive and more direct education for both students and professionals regarding the ethics of forecasting. This is a topic that dates from at least 1989 (Wachs 1989) but is treated lightly in most curricula.

- Better modeling.

The above steps set the stage for improved travel demand forecasting, but they do ensure it. We also need to substantially improve, in a coordinated fashion, our understanding and modeling of travel demand.

A critical missing element in our current research is the lack of coordination among research agencies and institutions, both within and across nations. We need better organizational structures, not just to monitor and report on modeling ‘successes’ and ‘failures’ as noted above, but also to prioritize and develop improvements in a wide range of technical modeling issues. These should be international in scope.

And we need better data. Virtually all of the information we have on travel behavior is cross-sectional, and does not track changes in behavior over time. We need to gather more real-time data to get at variations in travel, and use panel data as the rule, not the exception, in model development and validation. It will be a challenge to establish and fund such efforts, but the experience of long-term panels in other disciplines such as health, time use, and consumer surveys suggests that it can be done.

Most important, we need better understanding, which is not likely to be achieved without coordinated research to understand travel behavior and household travel decision-making. This means developing a unified international research agenda, thorough conferences, meetings, and associations, to identify and recommend needed key research. The longer-term goal is to develop a holistic theory of household decision-making (attitudes, roles, activities, location and social networks, allocation of resources, travel, feedback to development, etc.) to guide model development. This means clarifying what is unknown that is needed, and establishing research programs to get it.

But knowledge is not enough. We need to get the results to practice. The focus should be on developing new paradigms for handling issues not adequately covered with current methods, particularly non-capital policies. Perhaps most controversial, the process should be user-driven to ensure relevance to policy. Buy-ins by major schools interested in participation will also be essential to reduce the remoteness of academic research from practice. Academic papers in journals and presentations at major practice-oriented organizations such as the Transportation Research Board should include a specific application-to-practice section outlining how to use the results in practice. Perhaps we also need to unhook tenure decisions from papers published, so that academic research will be better concentrated on coordinated goal-oriented research rather than on the incremental advancements now being reported.

This may require more money or at least more targeted funding. Potential sources include pooled funds (e.g., Spielberg 2007), private-sector funding of modeling research (e.g., Johnston 2012), or simply coordinated governmental research programs. There are numerous examples of this in various research communities, including the Transportation Research Board's Strategic Highway Research Programs. When there's a will, a way will be found.

- Better forecasting.

As difficult as is better modeling, it is even more difficult to develop better travel demand forecasts, which rely not just on understanding behavior but also predicting it into uncertain circumstances.

To do this, we need to develop better ways to quantify the uncertainty in land use, employment and demographic forecasts, particularly for sub-regional zones near proposed projects. We can conduct more research on model transferability, so that the circumstances under which modeling findings can be compared are more clearly understood. We can expand the link to practice through the use of elasticities and other devices. We can use Monte Carlo, stress tests (Lemp and Kockelman 2009) and reference class forecasting to develop realistic ranges and probabilities of outcomes, rather than single absolute numbers. We can develop ways to handle external events such as recessions and booms, political changes, or energy crises or breakthroughs. We can widely publicize caveats regarding model accuracy in project promotion and review material.

- Institutional improvements.

As the above review suggests, a significant element of the malaise now being experienced in travel demand modeling is the institutional structure that drives it. Some of this is dependent on the increasingly complex tasks we are asking models to perform, but other elements are relatively simple to resolve. For instance, reserving a portion of modeling funds for evaluating subsequent model accuracy would quite rapidly establish information on short-term modeling accuracy. We can also take steps to lower optimism bias, for instance by increasing local stake in project funding and by evaluating proposal worthiness independently of the source of funds. A more extreme action might be to establish independent forecasting capability, separate from agencies, sponsors, or financiers. Even further, we might include incentives and disincentives, or perhaps even penalties suggested by Flyvbjerg (Forster 2012), for forecast errors. However, the use of punishments might lead to firms exiting the business, and may have already worsened the case for better forecasts (Johnston 2012).

Humility

The above approach is predicated on the belief that with a concerted coordinated effort the understanding of travel behavior and the accuracy of travel demand forecasts can be improved sufficiently for confident use in public and private transportation decision-making. Essentially it builds on the optimism of humans to better their environments through study, planning, and implementation of needed investments. But there are limits to such knowledge, and some things are not knowable with certainty. Given the uncertainties of its inputs, travel demand forecasts may be one of these. Travel, activities, demographics, land use and transportation investment are so complex that it may be simply not possible to usefully forecast future travel demand. As van Vuren (2013) cautions, *“We need to move away from the idea that models can solve problems and give the right answers. Models should be used to sharpen the questions and test different assumptions”*.

Accepting this uncertainty does not seem to have been a serious problem in the past. Travel demand forecasting as a craft is only 50–60 years old, yet thousands of projects were built in the three millennia before that. This is not to suggest that we should return to the King’s Edict of project advancement or to complete reliance on the private sector to initiate major projects, but it does suggest that historically other mechanisms for decision-making that are not so data-driven have also produced major projects.

Other considerations might actually reduce the need for more accurate travel demand forecasts. Many projects are built to meet today’s problems, not future demand, so the need for a long range forecast may not be so great. Slowing population growth and wide geographic variations in growth also suggest cautionary forecasts. Other justifications for projects (environmental, economic and social) are often as important as traditional user-based justifications (time savings, reliability, safety, and operating costs). And as noted above, traditional 4-step methods don’t handle many current policies very well anyhow, so de-coupling the 4-step method from some policies might be sensible (Polzin 2013).

Rather the struggle to know what can’t be known, it may be wiser and more fruitful to openly acknowledge the uncertainties of this business, and to build that uncertainty into our decision-making. This approach would contain the following elements:

- Highlight model limitations. Led by professionals, establish an international travel demand modeling organization with a clear mission to monitor and report modeling performance, highlight the limitations of forecasts, and improve modeling performance where that can be done. Several potential organizations already exist that could serve this mission.
- Through this organization, set and promote ethical standards for the conduct of travel demand modeling, which specifically identify modeling uncertainties and limitations, and ensure that all major forecasts adhere to these standards. This might follow the examples of other professions (accounting, engineering, etc.) that have successfully established standards of practice.
- Use due diligence methods to evaluate project forecasts, using statistically reliable benchmarks from similar projects to estimate the average of previous projects, compared with the proposed project (Flyvbjerg 2013).
- Evaluate the accuracy of travel demand models in a variety of settings, and publicize the findings. This could take the form of mutual fund ratings, government reviews, a private rate-my-forecast initiative, university-based assessments, or trade group evaluations.

- Admit we don't and can't know many elements needed for accurate travel demand forecasting, and recognize the limitations of our knowledge. Set realistic expectations.
- Substantially increase the recognition of forecast uncertainty by modelers, citizens and decision-makers. This can be accomplished through clear caveats for forecasts, use of ranges and probabilities, and such devices as fan charts.
- Substantially increase the transparency of travel demand forecasting, using clearer and simpler methods to describe the major techniques, automated game-like scenarios and the like.
- Convert forecasts from single point-based estimates to range-based with probability of outcome.
- Expand the use of scenario analysis that challenges baseline assumptions, particularly for scenarios that initially seem unlikely but are extreme.
- Significantly reduce the role of travel demand modeling in project decision-making. Repeal laws and regulations that contain model-driven estimates.
- Eliminate regulations that require point-forecast modeling or tie funding or compliance to modeling capability. Examples of these in the US are requirements to 'demonstrate' air quality conformity, congestion management regulations, long-range planning requirements, project-based noise modeling, and project-based environmental damage modeling.
- Weight model forecasts less with regard to other factors in project decision-making. Deliberately make less use of model results in cost-benefit assessment.
- Increase the local share of project funding to strengthen locality involvement in project decisions and get the hard questions asked when one's own money is on the line.
- Reduce or eliminate competitive grant funding which may contribute to optimistic forecasts that justify sponsor proposals.
- Improve education regarding uncertainty and the ethics of forecasting.

Various blends of these approaches could also be suggested. For instance, one might focus on several common elements that will be needed regardless of direction, such as better monitoring of modeling results, standards for modeling and forecasting, educational initiatives, and increased local share of funding, possibly a modest ramp-up of coordinated research, and stronger treatment of ethics.

Either of these approaches is quite different from what we are doing now, and frankly I am not too optimistic about either being adopted. To succeed, either would need the support of professionals, trade organizations, institutions and governments, politicians, academics, consultants, project developers and promoters, localities, and the public. Within all of these groups, there are strong vested interests for the status quo. Champions and advocates for each approach, or a blend of the two, should come forward.

Why is this important? The purpose of travel demand modeling and forecasting is to improve investment and policy decisions and the value of public dollars in an age of public austerity, by improving the accuracy and relevance of forecasting and analysis tools. These investments generally use taxpayer or client dollars, so professionals owe them the best estimates possible, along with recognition of uncertainty.

The essence of the scientific method is to observe, theorize, test to find discrepancies, and then modify the theory. The travel demand modeling community does a fair job of observing and theorizing, but we do a poor job of finding discrepancies and modifying our theories. Our fundamental modeling paradigm, the 4-step process, has not changed substantially in 60 years, and its accuracy is highly suspect. Some of us who have participated in this discipline are therefore concerned that the future of travel demand forecasting (if

that itself can be predicted) is threatened by increasing skepticism. Will the discipline survive the next 50 years? What will it look like? Will travel demand forecasts be more accurate and more revered than today? Or will they increasingly be viewed as “*highly subjective exercises in advocacy*” (Wachs 1989), discredited by project reviewers?

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Response to Comment EO-2

Comment Code	Response
EO-2-1	<p>The commenter posed several questions regarding the project. For readability, the pertinent comments are summarized and <i>identified in italics</i> and highlighted in grey while the responses are provided in regular plain text.</p> <p>The following comment refers to the Ming Avenue, California Avenue, and Chester Avenue/H Street Interchanges that are within two miles of the State Route 99/58 freeway-to-freeway connection.</p> <p><i>Please explain how 3 clear violations of this design requirement will affect the flow of traffic, affect the interweaving of traffic and why this rule exists.</i></p> <p>The current interchange spacing criteria became a mandatory design feature in February 1995. State Route 99 was built in the 1960's and State Route 58 was built in 1976. The existing interchange spacing on State Route 58 was standard for that time with respect to highway guidelines. Therefore, the three nonstandard interchange spacing design features are pre-existing conditions with respect to the State Route 99/State Route 58 interchange. Although a pre-existing condition, any improvements to existing interchanges after February 1995 that do not meet current interchange spacing standards would require documentation and approval to maintain existing nonstandard features. Documentation to maintain pre-existing nonstandard features or incorporate nonstandard features requires the preparation of Mandatory Design Exception fact sheets, which requires approval from Caltrans Headquarters Division of Design.</p> <p>Although the project is not providing a southbound State Route 99 to westbound State Route 58 direct connector because of the low traffic demand for this direction of travel, the Centennial Corridor Project meets the purpose and need by providing route continuity and associated traffic congestion relief along State Route 58 within metropolitan Bakersfield and Kern County from the existing State Route 58 (East) (at Cottonwood Road) to Interstate 5.</p> <p>An eastbound State Route 58 to northbound State Route 99 connector is also not included as a project feature due to the low traffic volumes for the eastbound to northbound movement. It is anticipated that vehicles traveling east on State Route 58 would take the Mohawk Street exit and travel via Rosedale Highway to the Rosedale Highway/State Route 99 interchange for northbound travel. If traffic demand necessitates construction of this connector, Caltrans will initiate a future stand alone project. The project would be designed to allow for the eastbound-to-northbound connector to be added in the future. It is important to note that the Rosedale Highway widening would occur with or without the Centennial Corridor Project.</p> <p>Caltrans' Highway Design Manual outlines policies and procedures to carry out highway design functions. It is not intended as a legal standard for these functions, rather, used as a guide with general rules for highway design. During the design process, there are often circumstances when deviation to the general highway design rules is necessary. The analysis to deviate from these rules is referred to a "design exception." The design exception process is not a "violation" to the highway design rules, rather a process to implement feasible design and make sound engineering decisions based on the actual physical landscape of a real project. The effect on traffic is generally isolated to the direction of traffic between two adjacent interchanges. Traffic operations are evaluated between interchanges and, if necessary, are mitigated. In the case of this project, nonstandard interchange spacing has been mitigated by proposed auxiliary lanes to provide additional lanes for weaving maneuvers, braided ramp movements that separate movements so weaving does not take place, and by constructing a collector-distributor system, which proposes additional lanes separated from the mainline freeway lanes to provide on-ramp traffic and exiting traffic room for weaving and decision making without affecting the through traffic on the mainline of the freeway.</p> <p><i>After the reasons have been delineated, please explain what the effect of one exception means to the interchange, two exceptions means to the interchange, and three exceptions means to the interchange.</i></p> <p>The effect of one, two, three, or more exceptions to the interchange have been analyzed together in the traffic study. Traffic operations are evaluated between interchanges and, if necessary, are mitigated, as stated above.</p>

Comment Code	Response
	<p><i>Please discuss how the increase of exceptions increases the complexity of proper function.</i></p> <p>There is not a direct correlation between an increase in the number of exceptions and complexity or proper function. Nonstandard features associated with interchange spacing are regularly evaluated with respect highway traffic operations, right of way impacts, and freeway agreements with local jurisdiction (city of Bakersfield). The freeway agreement dictates local access points as agreed to by Caltrans and the city of Bakersfield. Removal of the access points at Ming Avenue, California Avenue, and Chester Avenue/ H Street would negatively impact local street circulation. The design exception process associated with interchange spacing ensures proper freeway operations, while maintaining local access as agreed to in the freeway agreement. Closely spaced interchanges interrupt traffic flow; vehicles seeking to exit/enter the freeway need to cross travel lanes within a short distance, which could result in weaving movements that negatively impact freeway mainline operations and safety. Proper interchange spacing would enhance safety by providing vehicles adequate distance to accelerate and safely merge into the freeway, while also providing mainline vehicles adequate distance to merge and decelerate at the next exit off-ramp interchange.</p> <p><i>Please give examples from the past 5 years where this number of exceptions was granted?</i></p> <p>The State Route 58 Gap Closure Project, within the same project limits, is one project that has documented and approved design exceptions for nonstandard interchange spacing for the same interchanges. There are nonstandard interchange spacing fact sheets for projects throughout the state on the State Highway System, as well as the Interstate System.</p> <p><i>Please explain why this rule exists and the traffic flow will be inhibited by this exception?</i></p> <p>Highway Design Manual Section 502.3 indicates that it is desirable to provide for the eight basic traffic movements to avoid undesirable operational characteristics. Interchanges that do not have an on- and off-ramp for each direction of travel are considered partial interchanges. This rule exists because partial interchanges lead to the potential for wrong way movements. As discussed in Section 2.1.1, Build Alternatives, the build alternatives will not include direct connectors from southbound State Route 99 to westbound State Route 58 and from eastbound State Route 58 to northbound State Route 99 because of low traffic demand in these locations. If traffic demand necessitates construction of this connector, Caltrans will initiate a future stand alone project. The project would be designed to allow for the eastbound-to-northbound connector to be added in the future.</p> <p>It is anticipated that in Alternatives A and B, traffic traveling on southbound State Route 99 to westbound State Route 58 and eastbound State Route 58 to northbound State Route 99 would opt for the shorter 2-mile alternate route on Rosedale Highway and Mohawk Street versus traveling 4.5 miles on State Route 58 and State Route 99. For example, southbound traffic on State Route 99 would exit at Rosedale Highway, travel west to Mohawk Street, and then south on Mohawk Street to join the Westside Parkway. Traffic traveling east on the Westside Parkway would use the same route in the reverse direction. The project proposes to rebuild the southbound State Route 99 Rosedale Highway off-ramp from an existing one-lane off-ramp with two lanes at the ramp end to a two-lane off-ramp with four lanes at the end, including an auxiliary lane, which begins south of Gilmore Avenue on State Route 99. A separate project (the Rosedale Highway Widening Project) would widen Rosedale Highway from four lanes to six lanes and provide two left-turn lanes from westbound Rosedale Highway to southbound Mohawk Street and two right-turn lanes from northbound Mohawk Street to eastbound Rosedale Highway.</p> <p>As discussed in Section 3.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, the results of the traffic study showed the build alternatives would provide better traffic flow for all vehicles due to direct route continuity compared to both the existing condition and the No Build Alternative in the future years. Improvements between Cottonwood Road and State Route 99 would provide auxiliary lanes and a collector-distributor lane, which would improve traffic flow by separating traffic exiting the freeway from through traffic.</p>

Comment Code	Response
	<p><i>Please explain how an exception was obtained, what argument was used, and examples from the last 5 years where two exceptions were granted?</i></p> <p>The applicable standard, prior to the signing of the Mandatory Design Exception Fact Sheets, was for the State Route 99/State Route 58 interchange to go through an interchange review with Caltrans Headquarters Design. It was determined through traffic forecasting and cost analysis that the branch connector movements from southbound State Route 99 to westbound State Route 58 and from eastbound State Route 58 to northbound State Route 99 would be underutilized for the 20-year design life. Examples were previously given in the above responses.</p> <p>As discussed in Chapter 21 of the Project Development Procedures Manual, a single fact sheet may contain multiple design exceptions for a single project. Potential design exceptions are discussed with the Design Coordinator, who is a professional engineer at Caltrans Headquarters, as soon as the need for an exception is identified. Once it is determined there is sufficient justification for an exception, a draft fact sheet is prepared and submitted to the Design Coordinator. As outlined in Appendix BB of the Project Development Procedures Manual, the fact sheets contain discussions of the standards for which an exception is requested, the reason for requesting the exception, if the design exception was created by the proposed project or an existing condition that is being maintained or improved, the added cost to make standard, traffic data, and a collision analysis. All comments from the Design Coordinator must be addressed and resolved to their satisfaction before the fact sheets are signed and approved. Even though one fact sheet may contain multiple exceptions, none of the exceptions will be approved until they are all adequately documented and designed to the satisfaction of the Design Coordinator. At the end of this process all mandatory/advisory fact sheets are signed as one document.</p> <p>As to the reasons for the design exception, all attempts were made to keep design exemptions to a minimum, however, some exceptions are required in order to avoid replacement of existing highway structures and to avoid even greater right-of-way acquisitions.</p> <p><i>There appears to be 5 distinct exceptions for the proposed interchange that is subject of this EIR. Please explain what effect one exception traditionally creates for the interchanges between two freeways and how the addition of 4 more exceptions complicates the equations? Does the addition of each exception add to the complexity linearly or exponentially? Please explain through the use of at least 3 traffic modeling formulas?</i></p> <p>Exceptions that the commenter refers to in this project are dependent on traffic volumes and operational analysis between the interchanges themselves, and are discussed above.</p> <p>There is not a direct correlation between an increase in the number of exceptions and complexity or proper function. Nonstandard features associated with interchange spacing are regularly evaluated with respect to traffic operations, right-of-way impacts, and cost to make standard.</p> <p>A total of four traffic models (No Build, Alternatives A, B and C) were used to evaluate traffic operations that includes interchange configurations that may require design exceptions. As indicated in Table 3.13, traffic conditions at the freeway segment level are worse under the No Build scenario for opening year (2018) and horizon year (2038) conditions compared to any of the three build alternatives.</p>
EO-2-2	<p><i>This Corridor is expected to have an unusually high number of trailer trucks and semi-trucks. Is there an increase in likely accidents due to the tight space in which cars and semi-trucks will be merging?</i></p> <p>An increase in vehicle collisions is not anticipated with this project. Traffic operations are evaluated between interchanges and, if necessary, are mitigated. In the case of this project, nonstandard interchange spacing has been mitigated by proposed auxiliary lanes to provide additional lanes for weaving maneuvers, braided ramps that separate movements so weaving does not take place, and by constructing a collector-distributor system, which provides additional lanes separated from the mainline freeway lanes to allow on-ramp traffic and exiting traffic room for weaving and decision making without</p>

Comment Code	Response
	<p>affecting the through traffic on the mainline of the freeway. The traffic study accounted for all vehicle types, including commercial trucks, in the weaving analysis.</p> <p><i>If this large number of exceptions which have been designed into this project results in injury or death, who will be the responsible for the party?</i></p> <p>The design meets standards, with design exceptions as necessary, to ensure the safety of the traveling public, for which Caltrans is the responsible party for State highway facilities. Approving any design exception is a Federal Action, which requires reviewing and documenting potential safety issues. Design exceptions must be approved by the Federal Highway Administration or on behalf of the Federal Highway Administration by a State Department of Transportation or local agency. Design exceptions are related to engineering standards that are not generally subject to state and federal environmental regulations unless the design poses a significant risk to the public.</p> <p><i>Where in the EIR is this environmental impact addressed?</i></p> <p>The adverse impact that you described in your comment does not exist—the project would not create interchange spacing problems, it would provide a solution by reducing congestion, which would improve safety for motorists. The current interchange spacing that contributes to traffic operation problems and congestion is featured as a transportation need that the project alternatives must address. Section 1.2, Purpose and Need, in Volume 1, states in part that State Route 99's close spacing for its two connections with State Route 58 (East and West), as well as an interchange at California Avenue, has resulted in conflicting merging conditions (cars coming onto the freeway are trying to move to the left and the cars on the freeway are trying to move to the right to use the off-ramp) that add to traffic congestion. The Caltrans standard for spacing between freeway-to-freeway connections is 2 miles, and the standard for spacing between interchanges is 1 mile. In this location, the two connectors from State Route 58 to State Route 99 and the California Avenue interchange are all located in slightly over 2 miles. Analysis of how well each alternative (including the No Build Alternative) would improve traffic flow and reduces congestion was presented in the draft environmental document and in the Traffic Report prepared for this project.</p> <p><i>If it was not addressed, why and under what reasoning would significant, and what is termed "mandatory", design exceptions not be considered to have an environmental impact?</i></p> <p>Mandatory and advisory design exceptions are identified in Caltrans' Highway Design Manual to ensure that roadway designers are aware of this guidance and to highlight areas for design consideration and review. Mandatory design standards are those considered most essential to the achievement of overall design objectives. Many pertain to requirements of law or regulations as embodied in the Federal Highway Administration's 13 controlling criteria. For more information regarding mandatory design standards, please refer to Table 82.1 of the Highway Design Manual. Caltrans holds responsibility for approval of all exceptions to mandatory design standards on the State Highway System and local facilities within State right-of-way, after which formal Federal Highway Administration's approval is requested.</p> <p>An environmental impact is defined by the California Environmental Quality Act per the environmental impact checklist provided in Appendix A. Mandatory design exceptions are engineering decisions implemented for a project and are not considered in the environmental evaluation unless the mandatory design exceptions would result in environmental impacts listed in the California Environmental Quality Act Checklist. Based on the results of the traffic study on the operations of closely-spaced intersections, significant impacts to transportation and traffic is not anticipated as a result of Preferred Alternative B.</p> <p>The National Environmental Policy Act requires Federal agencies to assess the environmental effects of their proposed actions prior to making decisions. In the case for the Centennial Corridor Project, the Caltrans as delegated by the Federal Highway Administration evaluates the environmental and related social and economic effects of the proposed action to implement the project. Similar to California Environmental Quality Act in determining environmental effects of mandatory design exceptions, the actual mandatory design exception is not subject to Federal environmental laws unless the engineering decision produces effects to the environment. In this case, design exceptions</p>

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	relating to the traffic operations of closely-spaced interchanges would not result in adverse environmental effects per the National Environmental Policy Act.
EO-2-3	<p><i>Chapter 9 refers to Public Representation not associated with CALTRANS or any elected official. Who was contracted from the public? Please describe how you have complied with all of the requirements of Chapter 9? How often are exceptions denied? Have the exceptions in this EIR requested ever been either approved or denied in the past 5 years? If so, please explain. In this EIR there are 5 exceptions requested. Are those exceptions considered separately or as a whole? Please explain.</i></p> <p>In accordance with Chapter 9 of the Project Development Procedures Manual, a Project Study Report was signed and approved on January 4, 2012, by the Caltrans District 6 Director. Additionally, coordination with the public and other agencies is included in the Summary at the beginning of the environmental document. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings, interagency coordination meetings, and an extensive public outreach program. For more information regarding coordination with the public, please refer to Chapter 5 in Volume 1 of the final environmental document.</p> <p>Design exceptions are approved, rejected or modified on a regular basis. These exceptions were considered as a whole and are based on sound engineering judgment. Design exception requests for this project were not previously denied. Please see below for more information on these exceptions.</p> <p><i>Have 5 exceptions to mandatory design standards from the Highway Design Manual been approved for a project that covers such a short distance been approved in the last 5 years? If so, please explain the purpose of the mandatory design requirements if they can be ignored by an established procedure?</i></p> <p>Project 06-OG850, the State Route 58 Gap Closure Project, completed in 2013 within the same project limits, is one project that has documented and approved design exceptions for nonstandard interchange spacing. In addition, there are nonstandard interchange spacing fact sheets for projects throughout the state on the State highway System, as well as the Interstate System.</p> <p>Supplemental guidance toward the development and conceptual approval of projects are provided with <i>Design Information Bulletins</i>, and then are implemented in the Highway Design Manual and Project Development Procedures Manual as design requirements.</p> <p>Three of the five mandatory design exceptions that are being referenced are nonstandard interchange spacing. The current interchange spacing criteria became a mandatory requirement per <i>Design Information Bulletin, Number 77</i>, dated January 31, 1995 and became effective in February 13, 1995. State Route 99 was built in the 1960's and State Route 58 was built in 1976. The three nonstandard interchange spacing design features are being documented in fact sheets as pre-existing conditions, in relation to when the interchange spacing became a requirement.</p> <p>Although a pre-existing condition, any improvements to existing interchanges after February 1995 that do not meet current interchange spacing standards would require documentation and approval to maintain existing nonstandard features. Most of the State's interchanges were built before 1995, so there is a potential for many nonstandard interchange spacing design exceptions to be documented throughout the State's highway inventory.</p> <p>While mandatory design requirements are those considered most essential to achievement of overall design objectives as pertinent to requirements of law or Federal Highway Administration's regulations, the Highway Design Manual Standards allow for flexibility in design exceptions that take the context of the project into consideration. This enables the designer to tailor the design, as appropriate, for the specific environment and circumstances while maintaining safety.</p> <p><i>Is there a requirement that any and all persons that have an interest or object to this request for exceptions are to be informed of the meetings by the state and federal agencies reviewing such requests? If not, please explain why. Are the minutes of these meetings available?</i></p>

Comment Code	Response
	<p>The mandatory design exception review is an internal Department of Transportation process. The process is a technical engineering review of proposed/draft nonstandard design features. Upon completion of the fact sheet approval for nonstandard design features, the document is signed by the Headquarters Design Coordinator. Minutes are not available for these meetings.</p> <p><i>Was there any effort to inform the public in this case about the application of exceptions?</i></p> <p>No. The mandatory design exception review is an internal Department of Transportation process.</p> <p><i>At these meetings are both the pros and cons to the proposal presented?</i></p> <p>Yes, the project engineer/designer must show the restrictions and/or disadvantages of making the design standard. For example, to make the State Route 58/State Route 99 interchange standard would require closing the State Route 99/Ming Avenue interchange, the State Route 99/California Avenue interchange, and the State Route 58/ H Street/Chester Avenue interchange, which would significantly impact traffic operations and circulation in Bakersfield. Additionally, the State Route 178/State Route 99/State Route 58 (West) interchange, the State Route 99/White Lane interchange, and the State Route 58/Union Avenue interchange would require extensive improvements to support increased traffic volumes diverted by closing the nonstandard spaced interchanges. The cost of improvements to make design features standard versus benefit obtained is regularly discussed.</p>
EO-2-4	<p><i>Was this design which is outlined above and is not very complicated, since it is prevalent in this state, ever considered?</i></p> <p>The Bakersfield System Study, completed in 2002, considered most of the elements outlined in the commenter's highway design plan. Constructing a freeway running parallel to 7th Standard Road as the primary element for connecting State Route 99 with Interstate 5 was included as an element of Alternatives 14 through 16 and 20. Using the Westside Parkway as the connector was included as an element of Alternatives 1 through 13. Constructing a freeway connecting State Route 58 (East) with a State Route 99 to Interstate 5 facility was included with Alternatives 5 and 6 as a freeway running parallel to State Route 99 on both sides or along the east side.</p> <p>The general alternative alignment outlined by the commenter was withdrawn during the Project Study Report phase because it did not meet the screening criterion. Specifically, it was deemed cost prohibitive by virtue of constructing a 28.3-mile connection from State Route 58 to Interstate 5 via a freeway alignment following State Route 204 (Union Avenue) and continuing west along the 7th Standard Road alignment. One element of the commenter's design assumes that 7th Standard Road could be converted to interstate design standards to serve as "Interstate 450" at a relatively low cost, with modifications to freeway-to-freeway interchanges at Interstate 5 and State Route 99 (Interstate 995). These modifications would not be acceptable to Caltrans or the Federal Highway Administration. Detailed cost estimates for Alternative 15, the most similar alternative screened to the one suggested by the commenter, identified that the cost to construct this alternative would be approximately \$2.23 billion which exceeds the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative 15 would be cost prohibitive and would not meet the requirements of Criterion 4. See Appendix N in Volume 2 for more information on why this alternative did not move forward onto further study and analysis.</p> <p>It is prudent to mention that many of the areas the commenter discusses as places of similarity to Bakersfield are not actually valid comparisons. San Diego, San Francisco and Los Angeles have a range of populations from 0.8 to 3.9 million people and have larger metro areas of roughly 1.3-13 million people. Additionally, these are part of larger regional areas with dense urban populations, such as the Bay Area. Bakersfield, in contrast, has less than 400,000 residents and the county has less than 900,000 persons.</p> <p>In addition, the commenter claims that growth in Bakersfield has been stalled over the past few years. However, the population in Bakersfield grew by 41% from 1990 to 2000 (adding just over 72,000 people), and by another 41% from 2000 to 2010 (adding over 10,000 residents). According to the Department of Finance, the population has grown by another 5,000 people in the past five years. Bakersfield has grown more quickly than other major cities in California in the past 10 years. Between 2000 and 2010, growth in</p>

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	<p>Bakersfield (40.74%) surpassed cities such as Sacramento (14.61%), Anaheim (2.52%) or even nearby Fresno (15.67%).</p> <p><i>Would this design have a smaller Environmental Impact than the current Project?</i></p> <p>In your comment letter, you described a proposal of a new freeway being constructed along 7th Standard Road between I-5 and SR-99 instead of the current alternatives being considered. If your proposal was implemented there is the potential for various environmental resources to be affected due to the existing conditions in the area. From a review of existing aerial photography, there is farmland located along much of the existing alignment. Partial acquisitions would be required to widen the existing roadway to accommodate the new freeway, and there would be a potential for significant impacts to these parcels as they are designated under the Williamson Act and/or Farmland Mapping and Monitoring Program-designated Important Farmland categories. Replacement of these lands may not be achievable within the immediate vicinity, resulting in adverse impacts. In addition, acquisition of this farmland could also affect overall exports and economic vitality for Central Valley farmers.</p> <p>In addition to farmland impacts, adjacent residential parcels would require acquisition resulting in displacement of homes and residents. Based on the review of this proposal, an existing residential neighborhood at 7th Standard Road and Central Valley Highway would require displacement of residential homes and a church that services the neighborhood. In addition, several commercial and industrial properties located along 7th Standard Road would be affected by a new freeway and need to be displaced. The displacements associated with this proposal may result in significant community and economic impacts to this area of the city.</p> <p>Other environmental impacts that would occur as a result of this proposal include cultural, water quality, and biological resources. Farmland/Residential structures located along the proposal corridor may be older than 50 years or have other defining characteristics to make them eligible as historic resources. The proposed corridor crosses several waterways which may result in additional impacts to water quality, wetland, vegetation or wildlife habitat. All of the impacts described above would require additional environmental analysis and mitigation measures.</p> <p><i>What would be the cost differential between what I have proposed to attain the same goals as the present project? Please evaluate this calculation based on 1) starting from scratch, as if this was the preferred proposal and what the cost would be to abandon the present Project and substitute this proposal.</i></p> <p>The cost of the commenter's highway design plan would be on the order of \$4 billion in current year dollars) for the ultimate connection to Interstate 5. This estimate is based on the cost of dual loading State Route 99 from State Route 58 (East) to north of 7th Standard Road; constructing two new system interchanges with State Route 99 and Interstate 5; reconstructing the system interchange at State Route 58 (East); reconstructing the service interchanges at California Avenue, Rosedale Highway, Golden State Avenue, Olive Drive, State Route 65, and 7th Standard Road; and constructing no less than four new service interchanges and one railroad grade separation (Burlington Northern Santa Fe) along a new 21-mile-long east-west freeway, running parallel to 7th Standard Road. By comparison, extending the Westside Parkway to Interstate 5 would involve approximately 9 miles of new roadway construction from Heath Road to Interstate 5 and construction of three service interchanges, one railroad overcrossing, and one system interchange with Interstate 5. This work would be in addition to the Centennial Corridor Project.</p> <p><i>Why weren't similar alternative addressed?</i></p> <p>An alignment along the existing 7th Standard Road was considered as an alternative during the earlier project development phase, but it was eliminated from further evaluation, see Section 2.1.5, Alternatives Considered but Eliminated from Further Discussion (Volume 1), for further discussion. This alternative is identified in Table 2.3 of the final environmental document as Alternative 15. Project Development Team meetings consisting of Caltrans, city of Bakersfield and its consultants, and County of Kern were held in August and September 2008 to discuss and screen 18 alternatives to carry forward for further analysis. A total of eight criteria were established to evaluate which alternatives to carry forward in the environmental phase of the project. Alternative 15 was</p>

Comment Code	Response
	<p>eliminated from further consideration because the preliminary cost estimate exceeded the maximum reasonable threshold and availability of reasonable funding for construction of the project established for the Centennial Corridor Project.</p>
EO-2-5	<p><i>What is the environmental impact of the current Project versus this proposal in that the Project in this EIR does not create a freeway between I-5 and the 99 freeway and the proposal does complete this important goal?</i></p> <p>While the proposal was not studied in depth because it was eliminated earlier in the process, as explained here, it is possible that it could have as many or more impacts to the environment as the Centennial Corridor project, just in a different way. While homes and businesses may be avoided, the proposal would have a tremendous impact on farmland, including those under Williamson Act contract. These farms are businesses as well. Farmland is often considered habitat for many special status species and a greater number of species may be impacted by using farmland. While the proposal would avoid parks and known historic properties, it may have a greater potential to impact buried archaeological and Native American sites. There may be unknown hazardous waste sites due to farmland operations. There may be more jurisdictional waters and wetlands in this area. There could be more water quality impacts as well. The visual impact is high when a large freeway is placed in a rural area. By placing this type of facility in a rural area, the potential for induced growth can increase greatly. Avoiding a more populated area does not mean fewer impacts, just different impacts.</p> <p>Right-of-way requirements and environmental consequences would be significant with all of the build alternatives. This final environmental document analyzes the environmental impacts of the preferred Alternative B and compares No Build conditions. The Centennial Corridor Project is part of the ultimate freeway alignment that will eventually connect State Route 99 to Interstate 5. The project has been evaluated as an individual project, and future extension of State Route 58 toward Interstate 5 will be evaluated separately at the time funds are available and the traffic data justifies the expense and effort required to move forward with the extension.</p> <p><i>The Centennial Corridor Project Report</i> discusses the planned Route Adoption for a future phase to connect to I-5.</p> <p>This final environmental document does not compare the alternative of converting 7th Standard Road to a freeway (identified as Alternative 15 in Section 2.1.5) because it was eliminated during the project alternative screening process and is not subject to further environmental analysis. Hence, a comparison of impacts between the build alternatives (Alternatives A, B and C) and Alternative 15 could not be conducted.</p> <p>Given the location of 7th Standard Road, the magnitude of the construction and reconstruction required for the existing roadway will require substantial resources in terms of construction cost and obtaining required environmental clearances. In addition, the proposed conversion of 7th Standard Road to a freeway would require conversion of prime farmland and compliance with the Williamson Act. As mentioned previously, specific environmental analyses were not conducted for the conversion of 7th Standard Road as an Alternative because this alternative was rejected at the project alternative screening stage.</p> <p><i>Please evaluate the impact on the Air Quality, which is an important environmental impact and consideration, between these two designs.</i></p> <p>Because Alternative 15 was eliminated from further consideration, environmental impact analyses for this alternative, including an air quality analysis, are not required to be evaluated and compared with other feasible alternatives (Alternatives A, B, and C).</p>
EO-2-6	<p><i>What process must Caltrans go through to rename the 99 Freeway and construct and name 7th Standard Rd. as an auxiliary Interstate highway? How long does this process take?</i></p> <p>State Route 99 is part of the State Highway System. To rename State Route 99 to Interstate 99 would require transferring a State Highway to a Federal Highway, which requires Federal action and approval by the Federal Highway Administration. Renaming 7th Standard Road as an Interstate highway would require a more extensive process because this proposal would not meet the <i>Guidance Criteria for Evaluating Requests for Interstate System Designations</i> under 23 United States Code 103(c)(4)(A) and (B). In</p>

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	<p>order for 7th Standard Road to be converted to an Interstate Highway, a connection at each end of the proposed route to an existing Interstate System is required. There is no Interstate Highway within the project area for an Interstate Highway connection to the east. The nearest Interstate highway to the east is Interstate 15, which would require roadway improvements along State Route 58 to bring this route to Interstate Highway standards. Roadway improvements would be required from Bakersfield to Barstow for a total of at least 130 miles; this process would take considerable time and involve considerable reconstruction of State Route 58 in areas that do not currently meet interstate system standards.</p>
EO-2-7	<p><i>Please evaluate the traffic patterns for State Route 46, Lerdo Hwy, 7th Standard Rd and State Route 58 to the traffic on Stockdale Hwy. Show how the current traffic warrants the construction of the Project in this EIR? If you chose to use projections, then project the traffic patterns that would apply to what I have proposed and its impact on environmental impacts (air quality and economic impact)?</i></p> <p>The traffic patterns for State Route 46, Lerdo Highway, and 7th Standard Road were previously evaluated to the extent data was available as part of the Traffic Study technical report (November 2012). The traffic patterns for State Route 46, Lerdo Highway, and 7th Standard Road have little impact on Stockdale Highway. These roadways are all currently available for motorist choice and are used for regional travel, along with Rosedale Highway, Truxtun Avenue Extension, Westside Parkway, and Stockdale Highway. No additional traffic analysis is warranted for the named facilities, as the potential impact of the project has been considered in Chapter 3 of the Traffic Study technical report.</p> <p>Please see Response to Comment EO-2-5 for information about air quality projections for the commenter's proposed alternative. Additionally, economic impacts for the commenter's proposed project are not required to be evaluated due to the project being infeasible.</p>
EO-2-8	<p><i>What are the comparative right-of-way expenses and number of businesses and homes affected by the Project in this EIR and this proposal?</i></p> <p>The cost estimate for a proposed 7th Standard Road/new Interstate would cost \$4 billion to construct compared to the cost estimate for the Centennial Corridor Project (Preferred Alternative B), which is estimated at \$570 million. Farms are considered businesses as well and would be greatly impacted by this proposal. Per the 2015 Federal Transportation Improvement Program the Alternative B alignment right-of-way cost is anticipated to be \$165 million. The number of businesses and homes affected by the Preferred Alternative B alignment through property acquisition would be 121 businesses and 310 residential units. Because the proposed 7th Standard Road/new interstate was not carried forward for further evaluation due to the cost to construct the project, a detailed right-of-way cost estimate was not developed.</p>
EO-2-9	<p><i>There are two designs for a regional transportation plan and does not require any exceptions and the other requires 5 exceptions and deviations from mandatory standards in the Highway Design Manual. How is a decision made under those conditions?</i></p> <p>As discussed in Section 2.1.4, Preliminary Identification of a Preferred Alternative, determining the Preferred Alternative involves a comparison focusing on those areas where the impacts are different or one alternative has greater impacts than the other alternatives. For the Centennial Corridor Project, the distinguishing areas are the number of displacements and parcel acquisitions; impacts to community cohesion, parks, cultural resources, and Section 4(f) property; and cost. Initial Design Exceptions are identified for each alternative and documented in the Project Report. Any design exception that cannot be justified is removed from the design. Additionally, efforts continue through final design to eliminate or reduce nonstandard design features.</p>

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EO-2-10	<p><i>If there is a lower Environmental Impact with this proposal when compared to the Project, does it become impossible to claim that this EIR had NO environmental impact?</i></p> <p>The draft and this final environmental document do not claim that there are no environmental impacts, but does report what impacts are anticipated to be for each alternative, how great impacts may potentially be, and also includes avoidance, minimization and mitigation measures to reduce or eliminate potential impacts from the project.</p> <p>Because the alternative similar to yours (Alternative 15) was withdrawn from consideration (see Response to Comment EO-2-4), environmental impact analysis for Alternative 15 was not required because it was deemed infeasible.</p>
EO-2-11	<p><i>I would like to know how the calculation was made to determine this population number of 848,487. Has there ever been a 26 year period where population growth in the City of Bakersfield has been 3.5% annually or a period of 22 years where the growth has been 4.0%? In what industries will we see growth to drive and sustain 848,487 citizens and what will the median income be for this population?</i></p> <p>The population number 848,487 was derived from the Kern Council of Government's 2011 Final Regional Transportation Plan as cited in Table 3.1, Kern County and City of Bakersfield Growth Trends in both the draft environmental document and this final environmental document, which was based on estimates provided by the California Department of Finance. The estimate of 848,487 for Year 2035 relates to Metropolitan Bakersfield which includes unincorporated areas surrounding Bakersfield. The population estimate for Bakersfield itself in 2035 is 609,600 (California Department of Finance). The use of historic trend analysis to forecast future population levels is a widely accepted method. Information regarding population in the Community Impact Assessment, draft environmental document, and final environmental document was also from the California Department of Finance and was updated in the Final Community Impact Assessment and the final environmental document.</p> <p>Population growth can vary quite a bit from year to year. Using Department of Finance historical data for the decade of 1990 to 2000 and the decade of 2000 to 2010, growth has ranged from 1.09 percent up to 5.42 percent. These are the two decades in which population grew by 40 to 41 percent as discussed in Response EO-2-4. The average annual growth rate for these twenty years is 3.4 percent. While the seven years (2007 to 2013) included in the comment letter show much slower growth, future years may be higher.</p> <p>A discussion of future job growth and median income level is highly speculative. While a discussion of future job growth and projected median income level is outside the scope of the Centennial Project, according to the U.S. Department of Housing and Urban Development (April 2013), the construction and energy production sectors, especially associated with the oil and natural gas extraction industries, have been the fastest growing job areas in the local regional economy since the year 2000. In Chapter 3 of Volume 1, Section 3.1.2, Growth, of the final environmental document, growth is forecast to primarily occur in the service sector.</p>
EO-2-12	<p><i>In a study from 1986 the population growth for Bakersfield was forecasted for geographic areas of the city. The accuracy of the total growth seems to be accurate, although I have not researched the numbers to certify they are correct. The geographic forecasts were very inaccurate. Forecasts for growth in the northwest were substantially low, in the northeast too high, and in all sectors projections were off by a large enough amount that the standard deviation would in the double digits. From the journal called Transportation (Appendix I) there was a recent article on the inaccuracy of traffic modeling in general. If the population estimates have been inflated as it appears they have, the modeling was based on those numbers, and the modeling is at best only 40% accurate, isn't the conclusions you have based this EIR on completely unreliable? The article I have referenced focuses on the underestimation of costs and the overzealous projections on traffic. Please comment as to how this EIR is not subject to those errors. Please include the accuracy of population estimates from this EIR in that analysis.</i></p> <p>The Kern Council of Governments population and employment forecasts are regularly updated approximately every 4 years. Population information used in the project also</p>

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	<p>used data from the most current U.S. Census and the California Department of Finance population estimates. This data was updated for the Final Community Impact Assessment and this final environmental document. As a result, the conclusions reflected in the final environmental document are as accurate as possible based on the current data available. The geographic distribution of growth assumed for the project is displayed in Figures 3-2 and 3-3 of the Traffic Study technical report and in Volume 1 of the final environmental document.</p> <p>The Kern Council of Governments is the federally-designated Metropolitan Planning Organization for Kern County, responsible for developing and updating a variety of transportation plans for the County. Predicting modeling assumptions long range are subject to factors outside the control of a Metropolitan Planning Organization. Trend bifurcation and other unforeseen events make assumptions and forecasts beyond 5 years imprecise. Factors such as cost of living, interregional travel, and overall uncertainty of the future are problematic and could be described as uncertainty error. Robert Bain (international expert on forecast uncertainty) has researched uncertainty from multiple perspectives and sources and determined that the uncertainty for a 2035 regional forecast can be up to +/- 25 percent. To control for this, it is important to revisit long range forecasts and assumptions on a regular basis. Using the best available information, the Kern Council of Governments Regional Transportation Plan and associated model inputs/assumptions are revised every 4 years.</p> <p><i>Was the addition of GPS self-drive cars taken into account for this EIR? Please keep in mind that the generation life cycle for 95% of all cars is 8 years. This generation life cycle would imply that 16 years from today 95% of all cars will “drive themselves”, reducing the number of accidents and increasing road capacity (these cars will drive closer to each other due to the communication capability of one car to the other and because the reason we drive so far apart from each other and have so much gridlock is because people have much slower response time compared to a computer and we tend to brake when it isn’t necessary).</i></p> <p>The replacement of human drivers with global positioning system computer-guided mechanical drivers was not taken into account because this technology is not currently available and is too speculative to suggest that it would be available 20 years from now.</p>
EO-2-13	<p><i>Has the EIR looked at the sustainability and environmental impacts this population would have on the water supply? Can this area with its limited availability of water sustain this large of a population? How often does the State of California experience severe droughts?</i></p> <p>The results of the growth analysis indicate that the project would not induce population growth within Bakersfield. Most of the projected growth is a result of factors such as future development. Please refer to Chapter 3 of the Community Impact Assessment Study (May 2015).</p> <p><i>If this Project is completed and it drives the increase of population to 848,487 will it have a negative effect on the environment when it comes to water resources? If water is diverted to the population away from farming will this have a negative effect on the economic environment locally and worldwide? Kern County is essential to the food supply and helps to feed the world.</i></p> <p>Cities and counties determine local development and would need to determine sustainability and impacts to a given area based in their population. Water supply for a growing population is not within the authority of Caltrans. This project would not induce growth, but is to accommodate growth that has already occurred over 25 years or more and to accommodate future growth the city and/or county may approve. For further information on growth, please refer to Chapter 3 of the Community Impact Assessment (May 2015).</p>

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EO-2-14	<p><i>The greatest amount of growth for Bakersfield is and will remain to the south. Please comment whether the growth to the south was included in the EIR.</i></p> <p>The set of development projects identified in Section 3.1.1, Land Use, were deemed reasonably foreseeable to be considered as part of the baseline for analysis. On a macro-scale, a Growth Inducement Analysis prepared for the Thomas Roads Improvement Program considered the influence of the entire program of proposed transportation projects, including the Centennial Corridor. The analysis concluded that the Thomas Roads Improvement Program projects as a group (including the Centennial Corridor) would have the effect of moderately influencing growth pressures in the northwest and west Bakersfield metropolitan areas, and marginally influencing growth pressures in the west central and northeast areas.</p> <p>The geographical distribution of growth is graphically displayed in Figures 3-2 and 3-3 of the Traffic Study technical report. Growth to the south was reflected in the travel demand forecasts prepared for the project, the overall Thomas Roads Improvement Program collection of projects, and the Kern Council of Governments Regional Transportation Plan.</p>
EO-2-15	<p><i>What were the reasons for abandoning the Masterplan of 2000/2002? It was endorsed and approved by all effected parties. Up until the federal government directing what the project has to look like and how the federal money has to be spent, the beltway system delineated in the 2000/2002 Masterplan supported many growth possibilities as well as solve the existing shortcomings with the local transportation system. How does this Project help to form the Beltway system in the Bakersfield area? Wouldn't a beltway system similar to the 2000/2002 Masterplan have a much more positive environmental impact all the way around? If I am not mistaken, it seems like the Project is taking one of the minor, future and almost last components, of the earlier plan and making it the foundation of the transportation needs of this area. Doesn't this Project delay and fracture the true needs in Bakersfield for a Beltway system? The northern portion, which would have turned 7th Standard Rd into a freeway, can't be completed and so the endpoints for the crosstown and western sections for the beltway will have an endpoint instead of a circular pattern.</i></p> <p>The Master Plan of 2000/2002 referenced in the comment is presumed to be the recommendation of the 2002 "Bakersfield System Study." The plan included six major improvement elements:</p> <ul style="list-style-type: none"> • The Westside Parkway from Heath Road to State Route 99. This project is nearly completed, extending from Heath Road to Truxtun Avenue. Construction of the proposed Centennial Corridor will complete the project to State Route 99. • Centennial Corridor. New freeway connecting State Route 99 with State Route 58 east of downtown Bakersfield. • Hageman Road Flyover. This project is in final design. • 24th Street Widening. This project is in the final design phase, right-of-way acquisition phase, nearing construction. • 24th Street/Oak Street Intersection Improvements. This project is in the final design phase, right-of-way acquisition phase, and nearing construction. • State Route 58 Realignment. This project was intended to connect State Route 58 (East) to Interstate 5 on a new alignment to avoid double loading of State Route 99 between the current connections of State Route 58 (East) and State Route (West). It included an east-west element and a north-south element. The east-west element was constructed as the 7th Standard Road four-lane expressway in lieu of a parallel freeway on a new alignment. Insofar as the north-south element, proposed as a freeway running parallel to Golden State Highway, it was not needed by virtue of the Centennial Corridor project. Connection from State Route 99 to the Westside Parkway is in the Project Approval/Environmental Document phase. Alignment selection was subject to further study by Caltrans, which selected Alternative B of the Centennial Corridor, combined with Elements 1 and 2. <p>Several of the transportation projects in the 2002 Bakersfield System Study (as noted above) are included in the overall Thomas Roads Improvement Program of projects that</p>

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	<p>are currently in construction or nearing completion. Caltrans is the lead agency under both the National Environmental Policy Act and the California Environmental Quality Act for the Centennial Corridor, Hageman Road Flyover and State Route 58 Realignment projects. The city of Bakersfield is the lead agency under the California Environmental Quality Act for the 24th Street Widening and the 24th Street/Oak Street Intersection Improvements projects, while Caltrans was the lead agency under the National Environmental Policy Act.</p> <p>On the Westside Parkway, the Federal Highway Administration was the lead agency for the National Environmental Policy Act and the city of Bakersfield was the lead agency for the California Environmental Quality Act. Caltrans provided technical support and oversight of the environmental document.</p> <p>The currently proposed Bakersfield Beltway system (including the Centennial Corridor Project) has undergone extensive operational analysis, local/state agency coordination and public review since 2002. Several of the beltway transportation projects have been refined to address the circulation needs of the city of Bakersfield through the public participation process. The resulting Beltway system in Bakersfield is a result of numerous iterations from all stakeholders in the city of Bakersfield, including residents, businesses, local/state agencies, and elected officials.</p> <p><i>Knowing the elements of the 2000/2002 Masterplan, why was the new overpass on Golden State Highway over Garces Circle not made into six lanes? This mistake will be more obvious with the approval and the building of the Hageman Flyover.</i></p> <p>The newly constructed overcrossing of Golden State Highway with Chester Avenue has been designed to accommodate the addition of two lanes in the future, to provide six lanes in total, via lane restriping and conversion of the median and shoulders to mainline travel lanes.</p>
EO-2-16	<p><i>What is the current level of service on I-5 between the junction of 99 and the junction of I-580? How will the ultimate goal of the extension of I-40 to I-5 affect the level of service of I-5? Does it fit within the criterion where an improvement to any part of the highway system must be sustainable for a minimum of 20 years, especially when federal money is being used?</i></p> <p>As explained above (Response to Comment EO-2-6), it is not possible to create Interstate 40 from Bakersfield to Interstate 5 as described in the suggested alternative. As noted above, the reconstruction of highways to Interstate standards would have to be accomplished from Barstow to Interstate 5 to qualify for Interstate consideration. The current level of service on Interstate 5 between the junction of State Route 99 and Interstate 580 is generally level of service A, indicating that motorists are traveling at or above the speed limit. Traffic slows in the vicinity of both named routes, thereby reducing the level of service at these junctions.</p> <p>Neither Caltrans system planning nor Kern Council of Governments regional planning anticipates construction of a freeway to Interstate 5 within the planning horizon of the Regional Transportation Plan (2038) because it is not needed to accommodate projected traffic.</p> <p>The design year performance of the interim connection to Interstate 5 via the service interchange with Stockdale Highway meets the 20-year design life criteria.</p> <p>Questions regarding traffic use of State Route 99 and east-west roadways are addressed in the Traffic Study technical report. Section 2.6, for example, specifically reports truck movement patterns based on origin-destination studies conducted for the Kern Council of Governments and Caltrans on State Route 99, State Route 58, State Route 223, State Route 166, State Route 119, State Route 46, and State Route 65.</p>
EO-2-17	<p><i>On page it is stated that the close spacing of the interchanges at Ming Ave and California Ave in relation to the connection of 99 Freeway and State Route 58 causes congestion. Part of the Project that has been approved and is moving forward is the improvements to Ming Ave separated from this EIR. Not considered are the improvements to the 58 interchange and 7th Standard Rd which is the route that a significant amount of the future traffic, especially truck traffic, will use due to the large industrial area in Shafter that is expanding tremendously is not considered in this EIR. Why? Why is the EIR not advocating the closure of either the Ming Ave or California Ave off ramps? The California</i></p>

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	<p><i>Ave exit in either direction would have to be considered very dangerous. What is the environmental impact to not close this exit since the opportunity has been presented?</i></p> <p>Please refer to Response to Comment EO-2-1 regarding the interchange spacing. The proposed designs do not advocate closure of the Ming Avenue or California Avenue interchanges because it would disrupt local circulation, including access to the Valley Plaza Mall and to the Kern County Fairgrounds. Closure would also require extensive upgrades to the adjacent interchanges. The proposed designs will close the Wible Road ramps, which would reroute traffic to the California Avenue or Ming Avenue interchanges. The <i>Traffic Study Report</i> for the Centennial Corridor Project assumes the implementation of street improvements that are funded by the Regional Transportation Improvement Program and the Metropolitan Bakersfield Transportation Impact Fee Program that are expected to be built between 2013 and 2038. These programs include a wide range of transportation improvements, including the Rosedale Widening Project, 24th Street Widening, and the North Beltway project. Even with these projects, given the projected population and employment growth trends, traffic congestion would occur along Rosedale Highway, 24th Street, the Truxtun Avenue extension west of Oak Street, portions of Stockdale Highway, State Route 99, portions of State Route 178, Coffee Road, Mohawk Street, and Union Avenue.</p> <p><i>Where will the liability lay if there is a significant increase in traffic accidents for these exits as more people sue (as is forecasted) this corridor?</i></p> <p>Please refer to Response to Comment EO-2-2 regarding liability.</p>
EO-2-18	<p><i>On page 5 there s a discussion of the Tier 1 and Tier 2 environmental Impact statements. It is stated that KERNCOG evaluated previous transportation studies. Where is the 2000/2002 County of Kern Masterplan which was adopted and endorsed by the County of Kern, the City of Bakersfield and KERNCOG? The 2001 Route 58 Adoption Project Tier 1 Environmental Impact Statement/Environmental Impact Report is not part of the Masterplan that was certifies in 2002. When was the public given notice and an opportunity to comment on the obvious difference between the two plans?</i></p> <p>While the Thomas Roads Improvement Program collection of projects is very similar to the recommended transportation elements reflected in the Bakersfield Systems Study, there are differences. These include widening of the 23rd and 24th Street couplet through downtown Bakersfield from three lanes each to four lanes; removal of the interchange at 24th Street and Oak Street and the bridge extending Oak Street over the Kern River; replacement of the 7th Standard Road corridor freeway with widening to a four-lane expressway along the existing alignment; and selection of the Alternative B alignment for the Centennial Corridor connection of State Route 58 East with the Westside Parkway, to be rebadged as State Route 58 (West). These changes are reflected in a series of Kern Council of Governments Regional Transportation Plan updates and addendums, all of which included programmatic environmental documents and opportunities for public comment before certification. These include public circulation of the: 2007 Regional Transportation Plan Draft environmental document (March 1, 2007); 2007 Regional Transportation Plan Amendment No. 1 Addendum environmental document (January 15, 2009); 2007 Regional Transportation Plan Amendment No. 2 Addendum EIR (September 17, 2009); 2011 Regional Transportation Plan Draft Subsequent environmental document (April 30, 2010); and Final Subsequent EIR Addendum (May 2011).</p> <p>Though the Bakersfield Systems Study did not require a formal environmental impact document, community involvement played a key role in its development. Early in the study, the Project Development Team decided to create an extensive community involvement program that enabled local residents, property owners, business representatives, transportation-related organizations, and other special interest groups to actively participate in the Bakersfield Systems Study.</p> <p>During the course of the study, extensive outreach to the broader community was achieved through a series of successful public workshops and focus group meetings, as detailed in the Study's <i>Summary Report</i> (December 2002) available online at: http://www.bakersfieldfreeways.us/documents/Report_Bakersfield_System_Study_Summ ary_2002_12.pdf. Three public workshops were held as forums for the Bakersfield community to provide their input and voice their support or concerns. The workshops were designed as open house forums. In total, approximately 450 local residents, elected</p>

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	<p>officials, public agency staff, and other interested parties attended the 3 workshops, and more than 400 community members provided comments. Also, 15 focus group meetings were held with a variety of special interest groups, including homeowners, business groups, environmental groups, and transportation-related organizations.</p> <p>In addition to these workshops and focus group meetings, bilingual newsletters, newspaper articles, and radio and television interviews all helped to disseminate project information throughout the broader community. The city of Bakersfield also maintained a web page posting the latest Bakersfield System Study information.</p>
EO-2-19	<p><i>On page 6 in the purpose section there is no mention about the congestion on 99 Freeway and that the Project is a regional transportation project. Why? The purpose also documents a desire to consider continuity and traffic relief along State Route 58 in Metropolitan Bakersfield. The studies for the traffic that continues through Metropolitan Bakersfield on State Route 58 (Rosedale Highway) to I-5 indicate that this through traffic is minimal. Most of the traffic is either local, moves up and down the 99 Freeway, and continuing traffic currently uses 7th Standard Rd, Lerdo Highway, and State Route 46.</i></p> <p>In Volume 1, Section 1.2.2, Need, there is a subsection <i>Traffic Congestion on the Shared Portion of State Routes 58 and 99</i>, which discusses congestion on State Route 99 and other highway projects that affect this shared roadway. Providing continuity for regional traffic traveling through Bakersfield on State Route 58 is an important purpose of the project. By providing continuity, and thereby reducing traffic demand loading of State Route 99 from State Route 58 (East) to Rosedale Highway (currently State Route 58 West), traffic congestion along State Route 99 will be reduced.</p> <p><i>Bakersfield has as its major industries oil and agriculture. Both of these industries require many trucks. The EIR states several times about the high number of trucks in the area. Most of the trucks using and needing access to Rosedale Highway are destination bound. Just one of the Pipe companies on Rosedale highway had 200 trucks going in and out of it daily. The connection on Rosedale Highway to the 99 freeway will remain the primary route for this company. Part of the reason for Rosedale continuing to be their primary route for many companies is due to the absence of a northbound connection between the eastbound 58 and northbound 99.</i></p> <p>Origins and destinations of local truck travel are not expected to change significantly as a result of the project. Some travel route choices, particularly between industries located along State Route 58 (East) and both industries and end users located along the Rosedale Highway corridor west of Coffee Road, are expected to shift as a result of the project.</p> <p><i>Please explain if Air quality improvements for this Projects EIR were based on improvement in the ability for trucks to connect to I-5 through the bypassing of Bakersfield? Would those assumptions be incorrect if the local truck traffic does not change significantly? If the local truck traffic does not improve but more regional trucks travel through Bakersfield would that have a negative environmental impact on Air Quality?</i></p> <p>Truck volumes and shifting travel route choices, as detailed in Sections 2.6 and 3.7 of the Traffic Study technical report, have been reflected in the air quality analysis. For more information on air quality, see Section 3.2.6 in Volume 1 of this final environmental document.</p>
EO-2-20	<p><i>Pages 8-14 discuss the level of service (level of service) for the project area. The area truck traffic is referred to but not expanded upon. Where is the current truck traffic headed if in this area "Truck traffic accounts for 27 percent of the total traffic in Kern County? This is three times the state average of 9 percent." (Page 8). It further states that "At a regional scale, the project would promote economic growth and interregional/intraregional trade by improving linkages between existing segments of the State Highway system through Bakersfield." Do you have any proof of this statement? The greatest growth for truck traffic will be on 7th Standard Rd because of the vision of Shafter. This project only improves State Route 58's continuity. It has nothing that states it will improve linkages, If improving linkages to the Highway system to promote interregional/intraregional economic growth were the purpose and goal, wouldn't you have to know where the truck</i></p>

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	<p><i>traffic is, where its destination is and how the project will or will not change it? This would be an important environmental consideration for its impact.</i></p> <p>The technical studies that were summarized in the draft environmental document were available to the public upon request. These available studies include the Traffic Study technical report. Truck traffic patterns are addressed in the Traffic Study technical report, in Section 2.6 for existing conditions and Section 3.7 for future conditions. Eighteen (18) pages of text, tables, and graphics describe truck travel patterns and volumes in Section 2.6 of the Traffic Study technical report under existing conditions. This section quantifies truck origins and destinations based on surveys conducted for the Kern Council of Governments and Caltrans on state routes leading to Kern County. A portion of the trucks pass through Kern County without stopping, while another portion has origins or destinations within the county. Truck travel occurring solely within Kern County is not specifically reported other than findings obtained from the San Joaquin Valley Regional Goods Movement Action Plan (2007). According to this document, 27 percent of total traffic in Kern County is comprised of medium- and heavy-duty trucks (defined as vehicles with four or more axles).</p> <p>Truck use of 7th Standard Road and the potential increase in truck volumes resulting from buildout of the Paramount Logistics Park have been taken into account as part of the overall Kern Council of Governments travel demand modeling effort. Thomas Roads Improvement Program projects, which directly benefit the logistics park, include widening 7th Standard Road to four lanes and upgrading the facility to expressway design standards; constructing a grade separation over the BNSF tracks; and reconstructing and improving the interchange at State Route 99, which includes a grade separation with the adjacent Union Pacific Railroad rail line.</p> <p>Regarding linkage between the promotion of economic growth and improved transportation, this question is referred to the Federal Highway Administration's website "Freight Transportation – Improvements and the Economy: Understanding the Links Between Transportation and the Economy." See: http://ops.fhwa.dot.gov/freight/freight_analysis/improve_econ/#under.</p>
EO-2-21	<p><i>I do not understand how in Table 1.1 the Coffee Rd/Rosedale Highway continues to deteriorate while all other intersections along Rosedale Highway improve. What effect will widening of Rosedale Highway have on traffic? By the year 2038 the "No-Build Alternative" it is stated that the number of Intersections with a worse than D level of service in the Project Area increases to 22. This section is also where the population increase is discussed. The population is to grow 250% from baseline in 2009, but the number of intersections with a worse than D level of service increases to only 142% of baseline. That seems very consistent. I have discussed the possibility inaccuracy of the population forecast and I would like to know what effect a lower population forecast does to these numbers.</i></p> <p>Between 2008 and 2018, several roadway improvements are expected to be in place, including widening of 24th Street, widening of Rosedale Highway, construction of Mohawk Street between Truxtun Avenue and Rosedale Highway, and construction of the Westside Parkway from Truxtun Avenue to Heath Road. These improvements cause traffic to shift from one facility to another. The improved level of service results are forecast to occur along Rosedale Highway, Coffee Road, 24th Street, Oak Street, and Ming Avenue.</p> <p>The effect of the Rosedale Highway Widening Project was assumed as a baseline condition for both the No Build and build alternatives. No forecasts or analysis were conducted for a lower forecast of population other than the 2018 opening year and the 2038 design year. The population forecasts developed by the Kern Council of Governments and used for the Thomas Roads Improvement Program project traffic forecasts are lower than the county-level forecasts prepared for Caltrans by Dr. Mark Schniepp, California Economic Forecasts, Inc., or the California Department of Finance Demographic Research Unit.</p> <p>With respect to the intersection of Coffee Road with Rosedale Highway, while the traffic volumes are generally lower along Rosedale Highway as a result of the build project, traffic volumes on Coffee Road between the Westside Parkway and Rosedale Highway are higher. Comparing year 2018 and 2038 No Build versus build conditions, the net</p>

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	<p>result is an improvement in traffic level of service and delay during the AM peak hour, but a worsening of delay during the PM peak hour at this individual intersection. Please refer to the Centennial Corridor Traffic Study, Table 4-14 and Table 4-28.</p>
EO-2-22	<p><i>Due to the documented inaccuracies seen in traffic modeling and forecasting of traffic moving northbound on 99 Freeway from westbound 58 is a concern seems by this report to be unfounded.</i></p> <p>The commenter asserts that inaccuracies in traffic modeling and forecasting are documented, with such documentation presumed to be provided by the commenter via the comment letter. The response to comments provided herein indicates that the presumed “facts” provided by the commenter are incorrect.</p> <p><i>The level of service for this off/on ramp is never worse than D level of service. Most of the “Critically Poor” level of service existing at Ming Ave. The interchange at Ming Ave and the 99 Freeway are in violation for the Mandatory interchange buffer zones in California Highway Design Manual if the Centennial Corridor is built. Please explain how such a “problem intersection already” was not an impediment in the approval of the Design for this Project?</i></p> <p>The “project” proposes to rectify the interchange spacing proximity design exception by braiding the on-/off-ramps to and from Ming Avenue with the on-/off-ramps to and from State Route 58; therefore, the weaving/merging/diverging condition will be improved as a result of the project, effectively extending the operational interchange spacing to acceptable distances.</p> <p><i>Is this creating an unnecessary safety hazard? The EIR states that the Ming Ave and the California Ave off ramps are less than 1 mile from the 99 freeway and State Route 58 interchange.</i></p> <p>Safety will be improved as a result of the ramp braiding.</p> <p><i>Could you also explain why for the westbound 58 off ramp to the southbound 99 is a “B” or “C” level of service in 2008, 20018, and in the AM for the 2038 but is at “E” for the PM in 2038? This is also true to the section between the “H St” on-ramp and the northbound Freeway 99 when traveling west on State Route 58. How would widening the 99 Freeway to six lanes from the State Route 58 northbound to past 7th Standard Rd improve the level of service? This table states that the level of service for the Eastbound State Route 58 from the 99 freeway is presently a “C” and will remain a “C” through 2038. How does this justify the expense and environmental impact for the Centennial Corridor Project? Some of the level of service worse than D exists due to the Real Rd juncture, is it possible to eliminate that part of the State Route 58?</i></p> <p>These projected traffic volumes that the commenter mentions are based on recorded traffic counts from the base year, 2008, and anticipated growth rates for future years. The Level of Service was worse in the recorded counts in the afternoons than in the mornings. Thus, the anticipated Level of Service at these locations would also be worse in the PM than in the AM.</p> <p>The deterioration of traffic conditions for westbound State Route 58 to southbound State Route 99 is due to heavy on-ramp volume from Ming Avenue, heavy off-ramp volume to White Lane, and Ming Avenue on-ramp to White Lane off-ramp weave conflicts. These conflicts slow traffic traveling in the right-hand lanes of the freeway, and this congestion spills back toward State Route 58. The points of congestion noted by the commenter would not be affected by widening State Route 99 between State Route 58 East and 7th Standard Road. This widening would, however, diminish congestion forecast to occur in the southbound direction between Rosedale Highway and California Avenue.</p> <p>The build project assumes that widening of State Route 58 east of State Route 99 will occur, thereby allowing for level of service C or better conditions.</p> <p>The Centennial Corridor Project primarily affects traffic conditions to the west of State Route 99 and along State Route 99 north and south of the freeway-to-freeway system interchange. Improvements to State Route 58 to the east of State Route 99 are included to address changes to interchange ramp connections.</p>

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EO-2-23	<p><i>The stated purpose of this Project is to provide route continuity for State Route 58. It is now well known that State Route 58 is going to be changed to I-40. I-40 is a major interstate and it implies that the purpose for this Project would change to specifically a regional interstate system and not a local community problem to be solved. If the purpose has changed, doesn't that imply that this EIR is not point and because it did not study the true impacts of the Project, by law, must be redone?</i></p> <p>Since the current lack of route continuity contributes to traffic congestion and reduced levels of service on adjoining highways and streets, it follows that improving route continuity, and thereby reducing congestion on these roadways and highways, would also improve interregional travel as well as local by reducing congestion in the region and allowing for interregional travelers to continue through at a higher Level of Service.</p> <p>The commenter states, "It is well known that State Route 58 is going to be changed to I-40", as the basis of this comment. However, as explained above (Response to Comment EO-2-6), it is not possible to create Interstate 40 from Bakersfield to Interstate 5 as described in the suggested alternative. As noted above, the reconstruction of highways to Interstate standards would have to be accomplished from Barstow to Interstate 5 to qualify for Interstate consideration.</p>
EO-2-24	<p><i>The projected expense to the Federal Government and the City of Bakersfield is in the Hundreds of Millions of dollars. Bakersfield will need to borrow over \$250,000,000 if the estimates are accurate. The payback amount over 30 years will total close to \$600,000,000 based on current favorable lending rates. Those figures are a "best scenario" and may be much higher in the long run. How can that be "reasonable"? With at least one other alternative which is less expensive and had a potentially smaller impact environmentally, Independent Utility cannot be asserted.</i></p> <p>The purpose of the Centennial Corridor Project is to provide route continuity and associated traffic congestion relief along State Route 58 within metropolitan Bakersfield and Kern County from the existing State Route 58/ State Route 99 freeway interchange to Interstate 5.</p> <p>The Centennial Corridor Project proposes to construct a new alignment for State Route 58 from Interstate 5 via the Westside Parkway to the Cottonwood Road interchange (on existing State Route 58), east of State Route 99. The proposed Centennial Corridor Project is part of a larger Thomas Roads Improvement Project that has been divided into three segments. The Centennial Corridor Project is the easternmost segment and is segment 1 of the overall larger project. Segment 1, with the Preferred Alternative, Alternative B, proposes to construct a freeway to connect State Route 58 from its current "T" interchange at State Route 99 to the Westside Parkway, an existing local freeway. Segment 2 is identified as the Westside Parkway, and Segment 3 is the westernmost segment that would connect the Westside Parkway to Interstate 5, with an east-west alignment parallel to the Cross Valley Canal.</p> <p>The timing for construction of Segment 3 is unknown, but it would not occur until there is sufficient funding and greater traffic demand. Until Segment 3 improvements are made, traffic would use Stockdale Highway as the interim connection to Interstate 5. There are improvements proposed at the Stockdale Highway and State Route 43 (Enos Lane) intersection, to coincide with the Segment 1 build alternative. With the proposed improvements, Segment 1 of the Centennial Corridor Project is considered to have independent utility and logical termini.</p> <p>Since the inception of the Centennial Corridor Project, there has been consistent and ongoing financial reporting to the Federal Highway Administration. Construction of a new freeway is a costly endeavor; however, the proposed alternative (Alternative B) is the least costly of all the alternatives studied in this environmental document. Based on escalated 2016/17 fiscal year costs, Alternative A and Alternative C would be \$221 million and \$95.5 million more expensive than Alternative B, respectively. If the commenter is alluding to a proposed freeway connection along 7th Standard Corridor as a less expensive alternative, the preliminary cost estimate for such a project, as discussed in Table 2.3 (Volume 1) of the final environmental document, is \$2.23 billion. This is substantially more expensive than the Preferred Alternative B. In addition, Preferred Alternative B would result in \$794 million in travel time savings over the 20-year (2018-2038) study period, surpassing current favorable lending rates payback cost in 10 less</p>

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	<p>years. In this sense, the net benefit of Alternative B outweighs the estimated payback amount.</p> <p>The commenter asserts that \$250 million will need to be borrowed to construct the Centennial Corridor Project. Based on preliminary engineering plans, the estimated loan amount through the Transportation Infrastructure Finance and Innovation Act (TIFIA) to construct the project is \$200 million. This estimate for the loan is subject to change because of limited engineering plans. Payback terms and interest are not available at this time until Centennial Corridor Project moves to the final design phase of the project development process. As mentioned previously, the cost of implementing Alternatives A, C and/or the widening of the 7th Standard Corridor (Alternative 15) cost significantly more than Preferred Alternative B (\$571 million). Therefore, Preferred Alternative B is the most financially reasonable alternative compared to the aforementioned alternatives.</p>
EO-2-25	<p><i>In conclusion, it does not appear that this Draft EIR has adequately addressed impacts to the community or relevant and reasonable alternatives. I ask for it to be redone with many of the recommendations provided in this communication.</i></p> <p>Caltrans is confident in the adequacy of the final environmental document. A range of alternatives were examined over the years (see Section 2.1.5, Alternatives Considered but Eliminated from Further Discussion, and Response to Comment EO-2-4). For the three build alternatives carried forward in this environmental document, all required technical studies were compiled according to state and Federal standards, including community impacts, growth, air quality, noise impacts, and water quality.</p> <p>Community impacts were extensively presented in Section 3.1.4; the document also discussed local fiscal and economic impacts (Section 3.1.4.2), visual/aesthetics and noise impacts (Sections 3.17 and 3.2.7), and future growth (Section 3.1.2). The character of Bakersfield was addressed under Section 3.1.1.2 in the discussion of the project's consistency with local and regional plans and policies. There has also been a reasonable opportunity for public involvement during the planning and development of this project, as detailed in Section 5.4, including extensive refinement of the project design as a result of listening to community members concerns. Our coordination with local partners is continuing and will remain an important component of the project through construction, mitigation, monitoring, and maintenance of the facility.</p>

